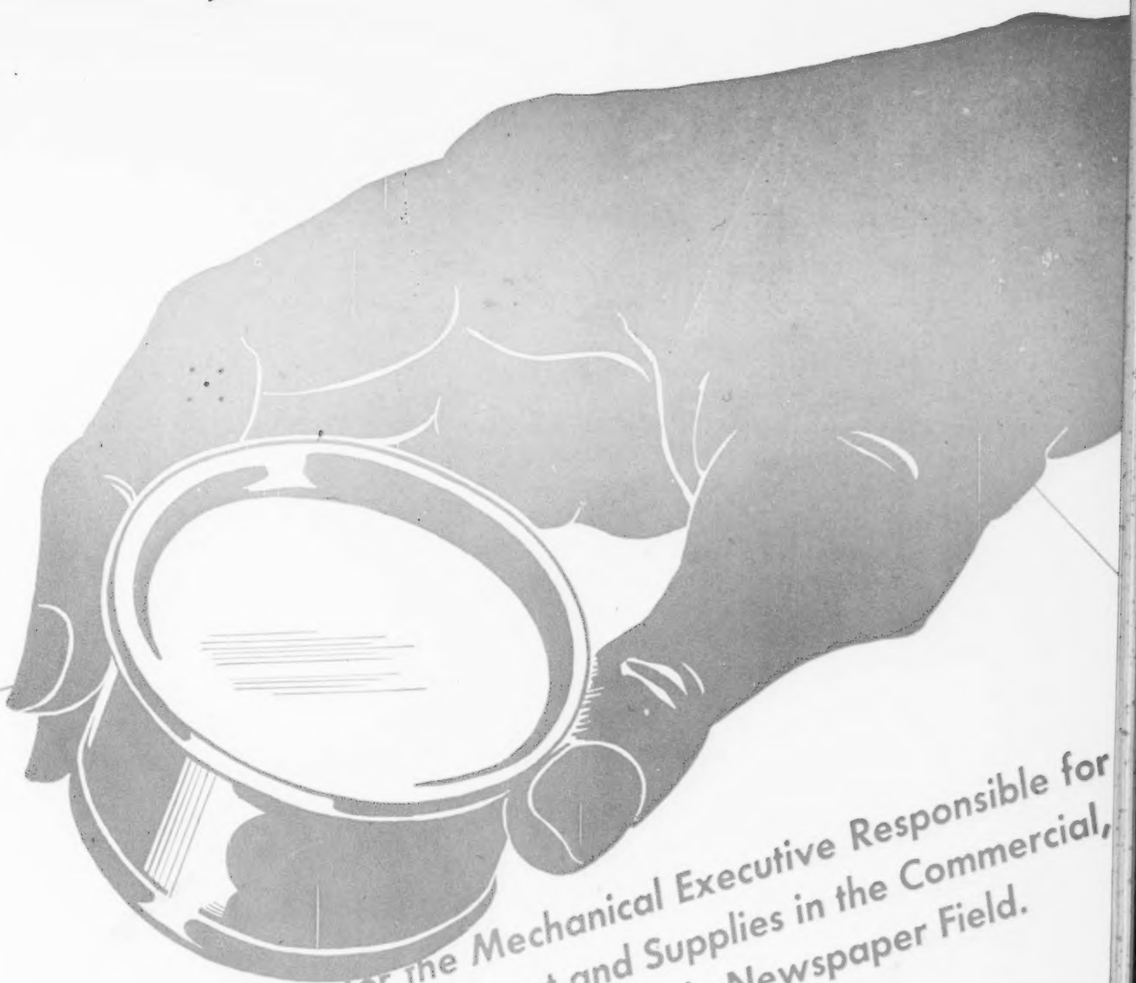
PRINTING EQUIPMENT *Engineer*



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MAY, 1943

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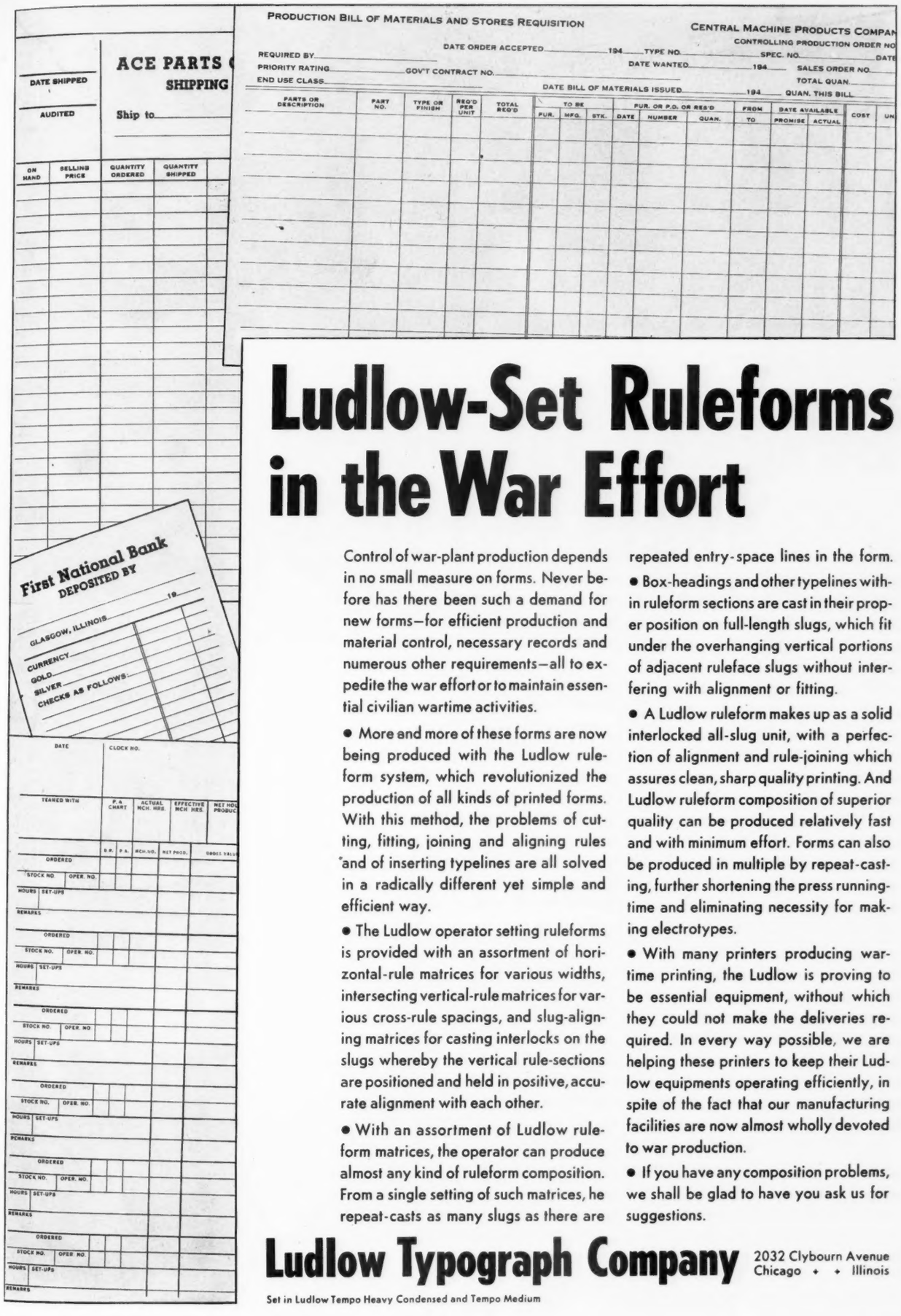

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LEADING ARTICLES, MAY 1943

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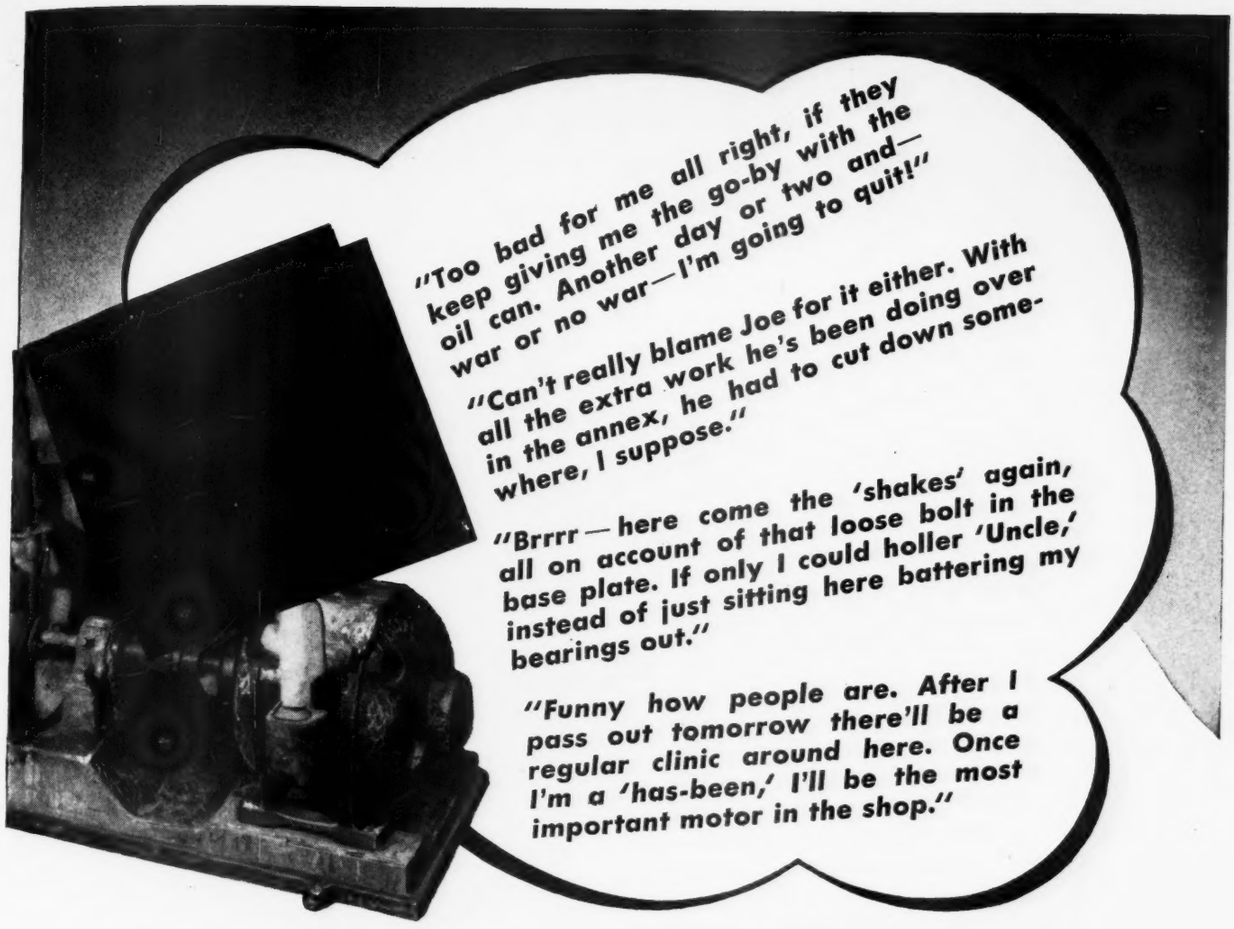
MEMBER CONTROLLED CCA CIRCULATION AUDIT


"Too bad for me all right, if they keep giving me the go-by with the oil can. Another day or two and—war or no war—I'm going to quit!"
"Can't really blame Joe for it either. With all the extra work he's been doing over in the annex, he had to cut down somewhere, I suppose."
"Brrrr—here come the 'shakes' again, all on account of that loose bolt in the base plate. If only I could holler 'Uncle,' instead of just sitting here battering my bearings out."
"Funny how people are. After I pass out tomorrow there'll be a regular clinic around here. Once I'm a 'has-been,' I'll be the most important motor in the shop."

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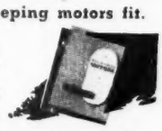

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How will it affect the future of the Graphic Arts Industry? Business looks with interest and new hope to the postwar era, and from Ideal's observations the picture is a bright one and full of promise.

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and

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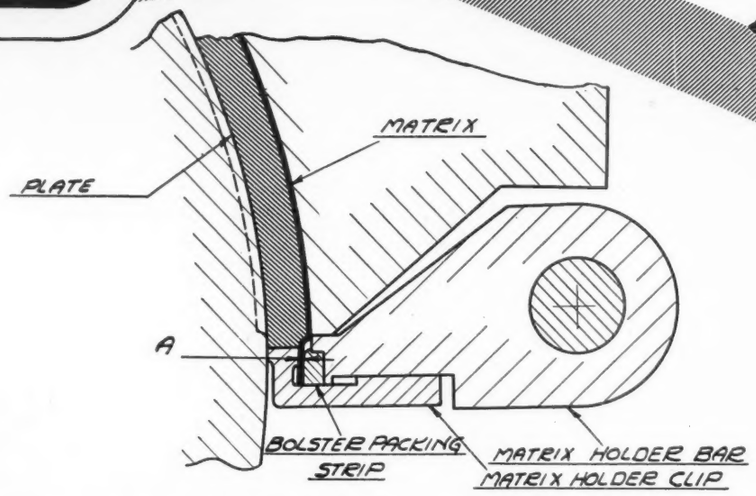

Fig. 1. Cross-section of Matrix Holder Bar, Matrix Holder Clip and Bolster Strip Lock-up.

CORRECT SETTING OF MATRIX HOLDER CLIPS

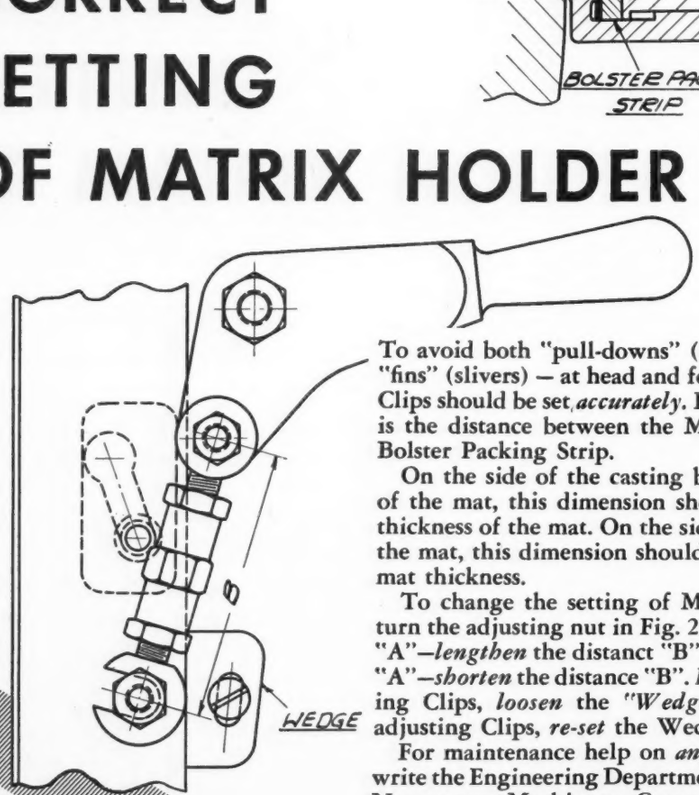

Fig. 2. Diagram of Adjusting Turnbuckle and Matrix Clamping Handle.

To avoid both "pull-downs" (loss of metal), — and metal "fins" (slivers) — at head and foot of plates, Matrix Holder Clips should be set *accurately*. In Fig. 1, the dimension "A" is the distance between the Matrix Holder Clip and the Bolster Packing Strip.

On the side of the casting box which clamps the *head* of the mat, this dimension should be *.001" less* than the thickness of the mat. On the side which clamps the *foot* of the mat, this dimension should be exactly the *same* as the mat thickness.

To change the setting of Matrix Holder Clips, simply turn the adjusting nut in Fig. 2. To *decrease* the dimension "A"—*lengthen* the distanct "B". To *increase* the dimension "A"—*shorten* the distance "B". *Important:* BEFORE adjusting Clips, *loosen* the *"Wedges"* behind them. AFTER adjusting Clips, *re-set* the Wedges.

For maintenance help on *any* Wood equipment, please write the Engineering Department at Plainfield, N. J. Wood Newspaper Machinery Corporation. New York office, 501 Fifth Avenue.

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Wartime Printing Industry Control

How Printing and Publishing Division of War Production Board Supervises Industry — Division composed of business and technical executives — Advisory Committees, through collective action, play important part in formulating WPB policies

By MacD. SINCLAIR

THE fundamental concept of the necessity for the existence of any of the various Divisions of the War Production Board during wartime is that it is necessary to have some kind of overall industry supervisory body to promote regulatory orders for the industry with respect to the materials consumed by the industry. Restrictive orders are necessary because of the shrinking supply of materials caused by the astronomical needs of men, equipment and materials for the war. In other words, everyone will agree that war needs must come first and the civilian needs may be served after war's requirements have been satisfied. In many cases, however, the necessity for serving both results in a compromise decision which will not affect war's requirements inequitably and at the same time will enable the civilian industry to carry on."

Thus did Director W. G. Chandler summarize the fundamental reason for existence of the War Production Board, and the Printing and Publishing Division of the Board, which supervises the three billion dollar Graphic Arts Industries. In interviews, Director Chandler, Deputy Director E. W. Palmer and other executives presented a word picture of the essential functions of the Division for readers of *Printing Equipment Engineer*. It is not possible in this limited space, however, to present a complete description of the Division and its workings, but enough will be told to enable our readers to gather some idea about the Division which, under present circumstances, must have a voice in your private business affairs just as the affairs of all other industries are administered by comparable divisions so that the war may be won in the shortest time possible.

"Strong Hands Would Get the Bulk"

"If some kind of civilian regulatory instrument were not provided during wartime together with an overall administrative body which in the case of the printing industry is the Printing and Publishing Division," continued Mr. Chandler, "there would be a violent scramble for available printing equipment, paper and supplies of all kinds. Strong hands would get the bulk of these materials and the little fellow wouldn't get much if any of them.

"It will be seen that a seller's market would be created and the little fellow, because of his limited purchasing power, would suffer through inability to secure even short rations.

"So far as it is humanly possible to do so, the civilian supply of materials is determined on a national basis and then is apportioned out through administration of orders so that everybody in the industry will share and share alike according to his normal volume."

"Complete Equity Has Not Been Achieved"

At this juncture, Mr. Chandler told a little story about Administrator John Atkins of the Canadian Printing, Publishing and Allied Industries' Wartime Prices and Trade Board. A friend of Mr. Atkins' told him that "all government orders are evil." Mr. Atkins replied: "I know it, but in wartime civilian regulatory orders are necessary so that as little evil as possible will be permitted in industry. Complete equity, however," he added, "has not yet been achieved."

"Before discussing the purposes of the Printing and Publishing Division any further," continued Mr. Chandler, "I want to state in all fairness to Deputy Director E. W. Palmer, that he really is the active executive in the Printing and Publishing Division. I came to the Division in November 1942 and found at that time a live, functioning organization. Up to then, there had been no necessity for restrictions of the various kinds and types of printing paper. The paper orders related to newspapers and magazines, however, form only a part of the supervisory and regulatory functions of the Printing and Publishing Division.

"The Printing and Publishing Division of the War Production Board is set up to cover emergency supervision of the printing industry in its three major branches—letterpress, planograph and gravure. It also administers the order issued for regulating the manufacture and sale of printing equipment, operating supplies and replacement parts; it administers the various orders regulating the use of the papers consumed by printing and publishing plants in the three major printing processes.

"The manufacture and sale of some isolated equipment and supplies items, however, are covered by WPB orders which are not administered by the Printing and Publishing Branch. To illustrate, the acquisition of some of the critical chemicals and other materials going into the manufacture of printing inks are supervised by the Chemicals Division of the War Production Board. Many items suitable for use in printing and publishing plants, trucks for instance, are regulated by other Divisions inasmuch as the total of these items consumed by the printing and publishing industries is relatively small when compared to the total consumed by other industries. In these cases, the Printing and Publishing Division is consulted about the necessity for granting applications."

How An Order Is Formulated

Mr. Chandler outlined the procedure by which WPB's regulatory orders are prepared and which are later administered by the Printing and Publishing Division.

When it becomes apparent that preparation of an order is necessary upon the advice of the Office of Civilian Supply, or other appropriate WPB Division, a small task group is called in to consider the necessity for and preparation of the order. The members of this task group are actual printing executives who spend time away from their own businesses to formulate terms in the orders according to prior war needs, to satisfy the requirements of war, and at the same time work out as equitable an arrangement as possible for distribution among the civilian printing units throughout the country.

After an order has been formulated according to the factual data received and from which the task group works in its preparation, it is submitted to the proper advisory committee which again is composed of active printing plant executives.

After the Advisory Committee and the Task Committee have "polished off" an order, it is then submitted to top War Production Board officials. While WPB officials are not bound to accept the draft or terms of an order, they generally do so.

"Don't Look At Us"

Mr. Chandler remarked: "Many printing executives have felt that regulatory orders are the brain children of persons who don't know a great deal about the industry. From the foregoing brief outline, it can be seen that all orders promulgated by the Printing and Publishing Division with the approval of the War Production Board have been prepared by democratic processes." He added: "If you don't like the orders, don't look at us—look at the active printing executive members of the advisory committees, who are from among your own ranks."

In speaking of the recent important paper conservation orders and the newsprint order in particular, Mr. Chandler asserted that while WPB's conservation orders are drafted to function as equitably as possible, no order can be made to cover *every* situation as it exists in all parts of the country. Therefore, all orders carry a provision whereby the Division is empowered to use its discretion in granting relief in special cases.

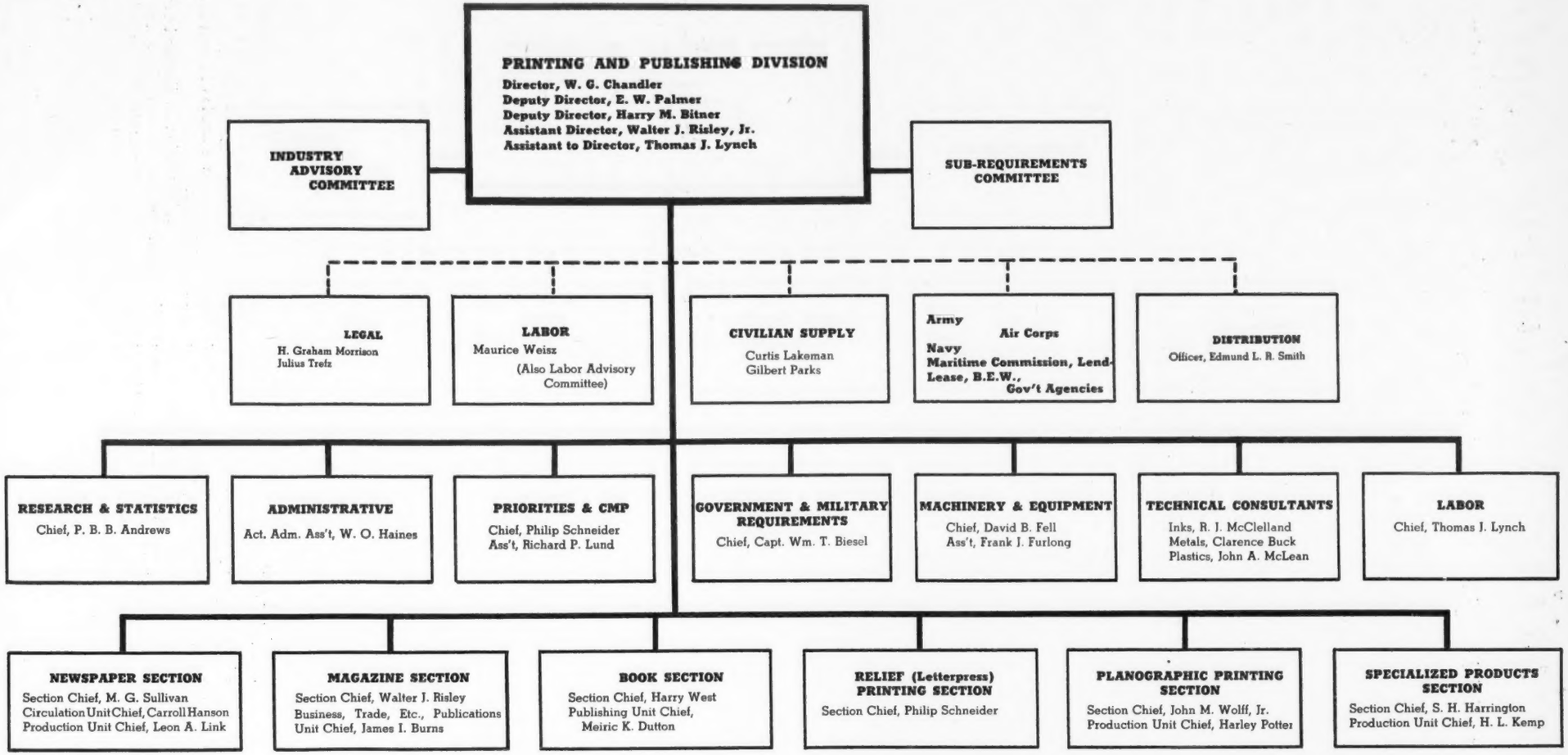
By way of illustration he discussed two cases in which compliance with Newsprint Order L-240 were met—one by private voluntary compliance and the other in which it was necessary to secure relief from the War Production Board because of abnormal conditions existing in the locality in which the newspaper is published.

In the San Diego (Calif.) area there has been a terrific influx of workers as the result of the manufacture of war materials. Under the

EDITOR'S NOTE:

Executive readers of *Printing Equipment Engineer* have been known to feel that the War Production Board and especially the Printing and Publishing Division, is some kind of dictatorial body which possesses the power to interfere with the conduct of their businesses. They should know that the Division is functioning to prevent extinction of their establishments under war's sledge-hammer blows.

As the result of interviews with Division executives, *Printing Equipment Engineer* is enabled to present an intimate article about the why, what and how of the Printing and Publishing Division's functions.



This Chart . . .

really is a story in itself with respect to the organizational setup and functions of the War Production Board's Printing and Publishing Division, which we suspect you yourself have felt the necessity for complying with its orders on more than one occasion. As a printing executive, it will give you a concrete idea about the overall inclusiveness of the Division with respect to the legal, armed service, government, priorities, research, labor and civilian industrial problems which must come before the Division. In addition, the Division must serve in a consulting and cooperative capacity with other Divisions of the War Production Board. In looking over the Section personnel, please note that each is supervised by a practical man who "knows his stuff". As a matter of fact, the names on this chart represent a powerful cross-section of the Graphic Arts in all its branches.

Executive Personnel of WPB's Printing and Publishing Division — Here they are — in this and the other illustrations appearing with this article are shown the active printing plant executives who represent printing industry in wartime. These men compose what might be called "buffer group" who soften impact of blows dealt the industry by gigantic war machine whose capacious maw gobbles major part of essential steel, iron, copper, aluminum, paper and other products needed for printing industry in normal times. If all these men could be made executives of one corporation, it would probably be in the order of a super-super-colossal outfit from a business and technical standpoint. 'Twould be topheavy organization, however, because it still would need creative writing talent.

1—Director Wm. G. Chandler of Scripps-Howard Newspapers, New York, tells printing executives that some kind of industry regulatory body is necessary in wartime to insure that strong hands won't secure bulk of dwindling supplies leaving none for the little fellow. Said he: "If you don't like the orders issued by WPB, don't look at us—look at the active printing executive members of the advisory committees who helped formulate them and who are from among your own ranks. Their viewpoint is representative cross-section."

2—E. W. Palmer, Deputy Director, is president of Kingsport Press, Inc., Kingsport, Tenn.; probably has the widest acquaintance among printing executives in every branch of the printing industry. He has addressed Graphic Arts groups from coast to coast exhorting printing executives to bear their burdens cheerfully during that trying period when a perplexed industry didn't understand what was expected of it. His genial, patient and even-tempered manner before the microphone won them over to fine cooperation.

3—Harry M. Bitner is a Deputy Director. He came to the Printing and Publishing Division recently from his job as publisher of the Pittsburgh (Pa.) *Sun-Telegraph*.

4—Walter J. Risley, Jr., Assistant Director, currently is on loan from Curtis Publishing Company. In addition to his duties as Assistant Director, he is Chief of the Magazine Section. Currently, he is supervising paper flow for gigantic publishing industry.

5—Thomas J. Lynch is Assistant to the Director; also bears title of Chief of the Labor Section. Together with members of the Labor Advisory Committee, officials of the Printing and Publishing Branch are advised in matters related to labor, particularly with reference to manpower problems.

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terms of Order L-240, it was not possible, because of the greatly swollen circulation, for the San Diego *Union-Tribune* to meet the terms of the order with respect to the base period as the result of the abnormal conditions in that area. The base period provides that all newspapers reduce their paper consumption according to the 1941 net paid circulation. In this case, it was necessary to grant special relief to meet the swollen circulation demands resulting from the sudden influx of people to a newly created and important war manufacturing center.

In the instance of another paper, Mr. Chandler expressed great admiration for Colonel J. H. Zerbey, publisher of the Pottsville (Pa.) *Republican*.

In Pottsville, war industries have affected the status of its population in terms of increasing the population. To comply with the order, his first move was to reduce available advertising space by 230 column inches per day. He revised the editorial news heads which traditionally covered a considerable portion of the editorial columns, cut off two pages four days per week, and made a number of other changes which allowed newsprint reduction. Not only did he stay within his quota as formulated in Order L-240, but he also reduced his paper bill. In common with other publishers he accomplished a major result by a series of minor operations.

Turned Minds To Real Savings

"Publishers and printers, I am sorry to say, haven't been good business people," he continued. "Their prejudices generally have leaned toward furnishing the reader with an excellent publication, even though the practice of certain economies wouldn't have affected the physical appearance nor the value of the publication. The net effect of the initial paper order has been to turn their minds to real savings. As the result of taking measures to conserve paper, the economies introduced have improved the financial position of many publishers."

Essentiality Left to the Public

"Some people in the industry anticipated that paper would be allocated on the basis of essentiality to the war effort," said Mr. Chandler. "It is the present consensus of opinion of the Printing and Publishing Division that such an arrangement cannot be entered into."

"Who are we," he demanded, "to dictate to the industry on a vertical basis as to which publications shall or shall not be permitted to continue publication? It is not up to us to de-

cide. Therefore, we issue horizontal orders so that all publications in their respective classifications will be on the same basis."

To illustrate the point, Mr. Chandler stated: "In the case of a newspaper, there are certain departments in the paper which are essential to me, while these same departments in your opinion, may be worthless. Someone may ask: 'Why don't you eliminate comics?' So far as we are concerned the public is the judge as to what is essential and what is non-essential. We provide the order for horizontal reductions. What is done in the way of compliance after issuance of a conservation order is the publisher's business—not ours."

Deputy Director Palmer Discusses Division Setup

IN explaining the functions and organization of the Printing and Publishing Division, Deputy Director E. W. Palmer stated: "The overall program of the Division is two-fold: (1) To represent the printing and publishing industry in all councils of the War Production Board, and (2) In turn to bring down to the industry all directives and orders which are promulgated. The Division also represents the printing and publishing industry for the War Manpower Commission, Smaller War Plants Corporation, the Rubber Administrator, Office of Price Administration, Office of Defense Transportation, and other divisions of the War Production Board in every division and channel of which it maintains contacts."

"The main job of the Printing and Publishing Division, however, is to handle orders issued by the Division as well as all those orders affecting the printing industry which are issued by other Divisions of the War Production Board."

"With respect to actual 'raw' materials consumed by the printing industry, most all of them are handled in Materials Divisions of the War Production Board. But the Printing and Publishing Division is the implementing agent to execute an order which the producing industry of that material has determined to be necessary. In other words, the Printing and Publishing Division is the authority on how much of a material is necessary for production in the printing industry, and the Materials Division is the authority on how much of a needed material can be spared for consumption by industry in general after war materials needs have been satisfied."

To explain in a direct way as to how the Printing and Publishing branch functions in an administrative capacity, Mr. Palmer discussed specific instances so that the reader can more readily grasp operation of the Division. He stated that a close relationship exists between the Printing and Publishing Division and the other Divisions of WPB (that is, those Divisions whose conservation orders affect the printing industry in any way). For instance, if a consumer comes to WPB for an adjustment of copper, he should apply for relief to the Copper Division. Before that Division takes action, however, it asks for a recommendation from the Printing and Publishing Division.

A variation in administrative functions of the Printing and Publishing Division can be illustrated in the case of the Zinc Conservation Order M-11-b, which was sponsored and is administered by the Zinc Division. The exception in administrative duties is that of the Obsolete Plate Order M-99 providing for the salvaging of various kinds of printing plates to scrap channels which is handled directly by the Printing and Publishing Division and to which, by amendment of the zinc order (M-11-b), was transferred the control of zinc employed in the printing industry for the making of new plates.

Division Administers Equipment and Supplies Order

"The Printing and Publishing Division administers direct the Printing Machinery Order L-226 issued in January and with which printing executives have now become familiar," continued Mr. Palmer. "Through the order, the Division controls production and distribution of all new printing equipment. It also controls the distribution of second-hand equipment except that which is offered at liquidation sales or which is over-age in value (that is, a machine which was delivered to the original user prior to May 1, 1937)."

HOW A PD-1a APPLICATION IS HANDLED

MANY printing executives, while they have not had occasion to fill out a PD-1a Form for transmission to the War Production Board, have wondered what function the form serves and how it is handled after it reaches the War Production Board.

The PD-1a Form is filled out by an intending purchaser and is sent to the War Production Board for permission to buy something for his printing plant which cannot be bought without a higher rating than is at present available to the intending purchaser. In other words, after WPB has considered all of the facts presented in the PD-1a application, and if the order is approved, a rating of sufficient value is assigned to the application so that the intending purchaser can secure the machine or material he needs.

The procedure for handling a PD-1a Application (in the case of the printing industry and assuming that the purchaser wants to buy a bench grinder, for instance) is as follows:

1—The PD-1a is received by the Routing Department of WPB where it is cased.

2—It is referred to the Printing and Publishing Division for recommendation.

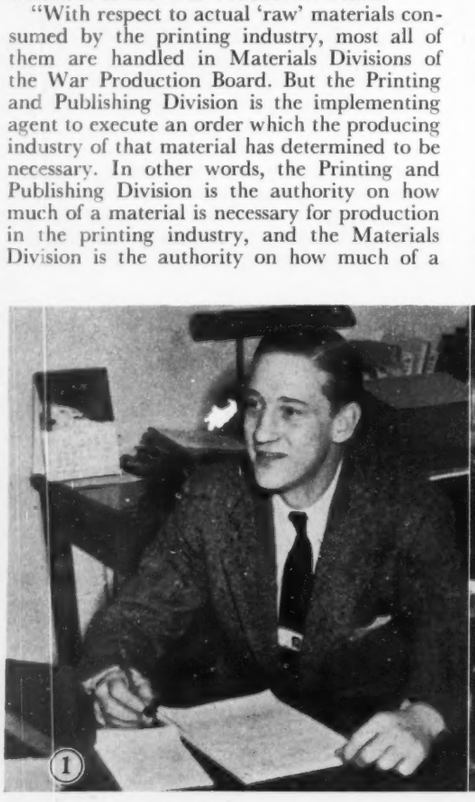
3—The PD-1a Form is received by the Machinery Division (because it is not considered specialized printing equipment).

4—In this Division it is handled as follows:

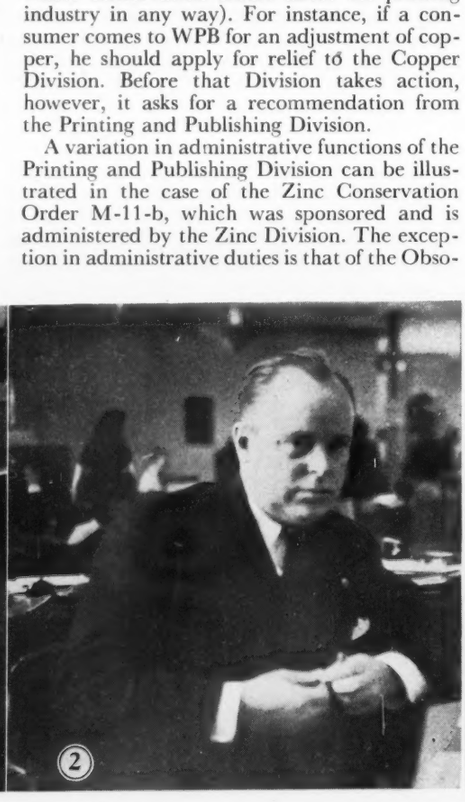
5—After action has been taken and if the application is approved, it is sent to the Clearance Division of WPB for approval.

6—If approved, it is assigned a sufficiently high rating to enable purchaser to buy the bench grinder.

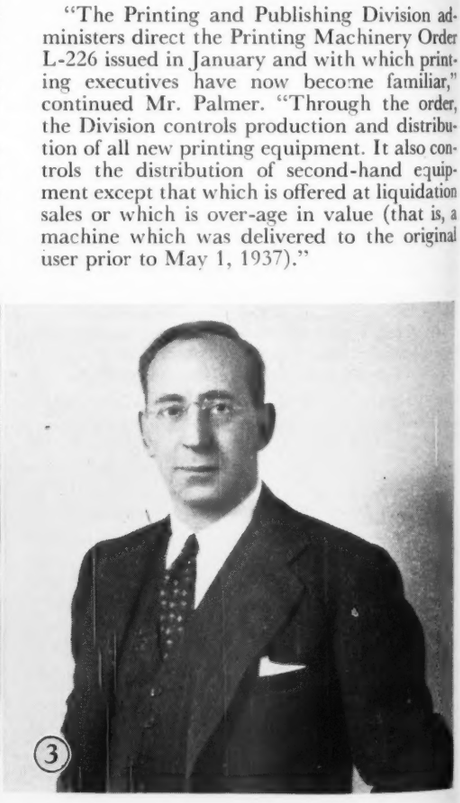
7—Approved application is returned to purchaser, who then places the order for the grinder.



1—Philip S. Schneider is Chief of the Priorities and CMP Section. Formerly, he was associated with Crowell-Collier Publishing Company, Springfield, Ohio. He is also Chief of the Relief (Letterpress) Section, and is administrator of several Printing and Publishing Division orders.



2—Capt. Wm. T. Biesel is Chief of the Government and Military Requirements Section. Is contact man for Congressional Joint Committee on Printing, the Army and Navy with respect to printing equipment and supplies. Must be ready to outfit a printing plant on moment's notice and put it on board ship for an expeditionary force.



3—David B. Fell, Chief of the Machinery Section, came to his present duties from Miehle Printing Press & Mfg. Co. Principally, it is his job to assist the Division in doling out to worthy applicants the dwindling supply of capital equipment.

1—Chief M. G. Sullivan, circulation expert of the Newspaper Section, left his duties recently with Gannett Newspapers, Inc., to assist the Division in its relations with the newspaper publishing industry.

2—Another front for the Division is Leon A. Link, Consultant for the Newspaper Section. Simultaneously, he tends two jobs—one in the Division and 'tother as Production Manager of the Cleveland *Plain Dealer*.

3—McGraw-Hill Publishing Company gave up James I. Burns to serve as Assistant to Chief Walter Risley, Jr., in the Magazine Section. Personally cheerful and agreeable, enjoys his work in the Magazine Section—likes to think in terms of large editions—administers business and trade publications.

4—Harry F. West, a dyed-in-the-wool book enthusiast, came to the Book Section to serve as Chief from J. B. Lippincott Company, substantial publishing firm.

5—Chief of the Planographic (Lithographic) Section is John M. Wolff, Jr., president of Wolff Printing Company, St. Louis specialist in color lithography. Nurses the interests of the lithographic industry—is well liked.

6—Chief S. H. Harrington of the Specialized Products Section, hails from Gilman-Fanfold Company. His interests are in more than one process or product. Supervises, principally, gravure, blank-book and loose-leaf printing and binding and plastic printing plate matters coming before the Division.

"One reason for existence of Order L-226 is the necessity for maintaining a stock pile of equipment for United States ships, mobile printing units for the armed forces, for the needs of our Allies and for any justified expansion and replacements in Government plants."

Mr. Palmer then observed: "No civilian plant expansions are permitted. The very few expansions in Government plants within the confines of the United States are subject to the joint approval of the War Department, the Joint Committee on Printing for the Congress, and the Printing and Publishing Division of WPB."

"Government plant expansion problems are handled through a Government and Military Requirements Section working in conjunction with the Machinery and Equipment Section of the Printing and Publishing Division."

Priorities, Machinery and Government Military Section

In addition to the previously described functions of the Printing and Publishing Division, Deputy Director Palmer explained several other functions. Among these is the Priorities and CMP Section. In this Section are received, cased and processed all PD-1a, PD-200, PD-556 and PD-333 applications; all Production Requirements Plan PD-25a and PD-25f applications, and, now that the industry has been made subject to it, this Section will handle all CMP applications.

The Machinery and Equipment Section picks up and handles all PD-556, PD-1a and PD-500 applications, Production Requirements Plan PD-25f applications and CMP-4b applications.

The Government and Military Requirements Section handles all government and military requirements applications, such as PD-1a, PD-55b and GRP. It also handles secret requirements for the armed forces, as well as Board of Economic Warfare, Lend-Lease and other applications from the Allies.

Chief Claimant Agent

Another function of the Printing and Publishing Branch is that it is the chief claimant agent for the entire printing industry, including all Government departments and agencies, for all paper and materials, whether critical or otherwise. For this purpose, the Division gathers, checks and transmits the requirements of the industry in all planning and distribution of materials.

Cooperates With All Agencies

Just to demonstrate that the Printing and Publishing Division is ready and willing to cooperate with other Government agencies in gathering needed data and statistics, Mr. Palmer stated that a survey had been completed recently for the War Manpower Commission in which was ascertained the number of workers in the printing industries with respect to desirable declarations of essentiality and occupational deferment. A rather interesting result determined by the survey indicates that approximately 20,000 workers moving out of the 18 to 38 age brackets annually were supplanted by 20,000 new workers from below the 18-year minimum, out of a total employment of 520,000 male persons. The indication in the survey at the time it was made is that 61,000 persons are annually within the 18 to 38 age class available for war duties. It is stated in the survey, however, that there is no way of telling how many of these people are deferrable because of dependents or because they are physically unfit.

Priorities and CMP Section Relief (Letterpress) Section

OUR next interview brought us to the desk of Chief Philip Schneider of the Priorities and CMP Section. Mr. Schneider also is Chief of the Relief (Letterpress) Printing Section of the Division, having received that appointment following the resignation of Wm. M. Passano who transferred in January, 1943, to another section of WPB.

As has been explained by Deputy Director E. W. Palmer, the Priorities and CMP Section receives and processes several types of

PD, PRP and more recently the new CMP applications. Supplementing Mr. Palmer's outline about the functions of his Section, Mr. Schneider said: "The organization setup of the entire Printing and Publishing Division is based upon desirability for obtaining specialists to work in the Division. There is a good key man in every section—he must be a specialist. This will be apparent when it is explained that one can't simply hire a clerk who is trained to handle lengthy columns of figures. Each man in the Division must be thoroughly grounded in his particular branch of a highly technical industry.

In speaking of the Priorities Section, Mr. Schneider stated the principal part of his duties is to gather data, principally related to copper, zinc and film as consumed by the Graphic Arts Industries. This data is sent either to the Requirements Committee or to the Proper Division of WPB, which will guide either one or the other in apportioning materials so that the printing industry will get its fair share. In Mr. Schneider's Section, the requirements of the printing plants in the army, navy and air fields are also reviewed.

In addition to these duties, Mr. Schneider is administrator for Commercial Printing Paper Order L-241 and for Amendment No. 1 to Obsolete Printing Plate Order M-99.

As Chief of the Relief (Letterpress) Printing Section, Mr. Schneider stated that the present important task of the Printing and Publishing Branch and his Section is to get the commercial printer adjusted to the requirements of Commercial Printing Paper Order L-241.

Government and Military Requirements Section

WHEN asked about the particular functions of the Section of which he is Chief, Capt. Wm. Trimble Biesel stated that it is his job to see that military, naval, army air field and government printing plant requirements are taken care of. He is the contact man for the Army, Navy and the Congressional Joint Committee on Printing and the Printing and Publishing Division with respect to printing equipment, materials and supplies.

This Section functions importantly in the case of the "sudden" outfitting of a printing plant which is to be sent along with an expeditionary force by ship, of any of the armed services which may be sent to any foreign location. In cases like these, the Captain stated, his Section must be ready to furnish a printing plant upon practically a moment's notice. He stated that the printing equipment industry as a whole has cooperated 100%. They don't hesitate but do bend every effort to comply with these urgent Government demands.

Captain Biesel stated it is the overall policy of the Printing and Publishing Division not to clear requests for new Government service plants unless they are to be used for confidential or secret printing. This policy is the result of the cooperative action, about a year ago, between the Congressional Joint Committee on Printing, the War Production Board, United States Public Printer Giegengack and

ADMINISTRATION OF AN ORDER
APPEALS FROM AN ORDER—RE-APPEALS

(Outline prepared by Deputy Director E. W. Palmer)

1—Administrator in Division Appointed

(An order is usually handled in the Section dealing directly with the affected Industry Segment, such as:

L-188 Blankbook and Looseleaf (Specialized Printed Products Section)
L-177 Wallpaper (Commercial Printing Section)
L-226 Machinery and Equipment (Machinery and Equipment Section)
M-99 Obsolete Plates (Book Section—where most of the salvage occurs)
L-240 Newsprint (Newspaper Section)
L-241 Commercial Printing (Commercial Printing Section)
L-244 Magazine Paper (Magazine Section)
L-245 Book Paper (Book Section)

2—Appeals for Relief or Interpretation

(a) Each appeal is "cased", given a number and is cross-indexed
(b) It is then referred to the proper Administrator
(c) Facts are developed from the appeal
(d) *If the Appeal is for Interpretation*, it is referred to legal counsel for legal decision and definition
(e) *If the Appeal is for Relief:*
  (1) It is considered by Appeals Committee of the Division consisting of:
    Administrator of the order from which the appeal is made
    One representative of Section
    Chief of the Labor Section
    One representative of the Civilian Supply Division
    One representative of the Conservation Division
  (2) A unanimous decision is written up on a prescribed form and signed by each member of the Committee
  (3) It is transmitted to the Appeals Board of WPB where it is reviewed and, if the decision of the Appeals Committee is affirmed, a letter (prepared by the Administrator) is sent to the issuance unit for the signature of the Director General for Operations and issuance.

3—If the Appeal is Denied, and Appellant Reappeals:

(a) The case is taken from the Division file and sent with the reappeal *direct* to the Appeals Board of WPB
(b) A decision is reached by the Board and is then sent through the usual channels for transmission to the appellant.

No one individual in the Division makes an original decision alone, nor does an individual or Division Committee make a decision on reappeal.

In cases where the Appeals Board *does not affirm* the Division Committee's recommendation for relief or denial, the Division administrator is called before the Board for a conference before a denial is issued.

They hail from North, East, South and West, do the Secretarial and Office Personnel of WPB's Printing and Publishing Division. Well trained in public relations work, they like the excitement of wartime Washington, D. C.

Group 1—(left to right)—Loretta Schleppenbach, Minnesota; Elizabeth Truby, New York; Acting Administrative Assistant Winifred Haines, Maryland; Doris Metz, Iowa.

Group 2—(left to right)—Gladys Wilcox, Washington, D. C.; Beryl Leigh, Idaho; Irene Hartlein, New York; Jean Morris, Pennsylvania.

Group 3—(left to right)—Modene Reed, Virginia; Dolores Layton, Illinois; Anne Popish, Colorado; Estella Sessums, Maryland.

Group 4—(seated)—Olga May, Oklahoma; (standing, left to right)—Audrey Warwick, Virginia; Katherine Greble, Indiana; Gladys Lipton, New York.

Meiric K. Dutton, Assistant Chief, 'tis reported, came to the Book Section from the Baltimore Sales Book Company. Dutton's experience has been wide—at one time he was advisor to the Swedish Government printing plant.

Richard P. Lund labors in the Priorities Section as Specialist and assistant to Chief Philip S. Schneider

Harley Potter is Production Unit Chief in the Planographic (Lithographic) Section. Came to the Division from Fleming-Potter Co., Peoria, Ill.

MECHANICAL
AND
PRODUCTION
EXECUTIVES

Right now, you are intensely interested in the application to the printing industry of CMP Reg. 5, MRO with Rating AA2. On page 18 of this issue you will find a very clear and detailed discussion about the use of this regulation with respect to maintenance, repair and operating supplies.

the United Typothetae of America. He then remarked: "The army and the navy have enough headaches as it is—so why take on another headache?"

The naval and army units together with the Joint Committee on Printing have set up funds so each of the districts can purchase field printing from commercial printers in each district. Aside from this, he added, the Government Printing Office is purchasing millions of dollars' worth of printing from commercial printers throughout the country.

Machinery and Equipment Section

AS has been explained previously by Deputy Director E. W. Palmer, the Machinery and Equipment Section picks up and handles the several types of PD Production Requirements Plan applications, as well as the PD's and CMP-4B applications. The Section is supervised by Chief David B. Fell. He is assisted by Specialist Frank J. Furlong.

It was explained to Mr. Fell that *Printing Equipment Engineer* wanted to discuss Machinery Order L-226 informally from the standpoint of the printing plant only, especially in relation to applications for the purchase of new machinery on Form PD-556 which reach his Section.

He said that intending buyers of new equipment must first secure approval for the purchase from the Printing and Publishing Division. For this purpose they fill out Form PD-556. As in the case of a PD-1a application, this form presents a complete picture of the applicant's plant, why the equipment is needed, what relationship acquisition of the new machine will contribute to essential work and it also shows how resourceful the applicant has been in attempting to make his present equipment do his work before applying for an additional machine or the replacement of what may be an obsolete machine.

Referring to a talk he made recently before a New York group of men associated with the Graphic Arts Industries, Mr. Fell stated that the manufacture of new printing equipment of all kinds has practically ceased. Manufacturers of this equipment are almost wholly (better than 90%) engaged in making materials for war purposes. From this standpoint alone, it will be seen that applications for the purchase of new equipment must be considered with ultra conservative attitude.

If the machine for which the intending buyer is making application is not in existence, the application is considered in relation to the dominant manufacturing needs of the armed services. It must be considered, of course, that equipment and supplies of all kinds for pursuit of the war take priority over any civilian demand.

To illustrate how necessary it is to provide adequate reasons to secure approval by the Printing and Publishing Division of a proposed purchase, Mr. Fell stated that in the case of a printer needing a machine or unit of some kind to enable him to complete an essential printing job, such as a war ration book, the application would be given exhaustive consideration. However, the decision is not easy to make when it is remembered that the equipment manufacturers have been almost completely converted to war work. Perhaps if only a few applications for new machines reached the Printing and Publishing Division the granting of requests for purchase would be comparatively easy. But when it is told that many such applications come in to the Division, even the printing executive who is not familiar with the situation will understand that reaching favorable decisions is extremely difficult.

Two prime questions must be determined when considering these applications for new equipment purchases: *Is the purpose for which the new machine is to be used an essential one?* and *Can this machine be made without upsetting the manufacturer's war schedules?*

To sum up briefly a principle which must be comprehended by all printing executives, Mr. Fell stated: "To win this war we must convert civilian industry to the making of war equipment and materials. The printing equipment manufacturing industry lends itself so admirably to that end that all of our *collective* efforts must be devoted to keeping the industry converted."

PALMER Now a Colonel

As the May issue of *Printing Equipment Engineer* goes to press we are informed that Deputy Director E. W. Palmer of WPB's Printing and Publishing Division has resigned. He has been commissioned a Colonel in the Army. In his new capactiy, which became effective May 23, he will have charge of the production of Army Manuals and other printing pertaining to the training of ground forces. In a recent issue of the *Congressional Record* he was highly complimented by Tennessee senators. Mr. Palmer's successor has not been announced at this time.

The Newspaper Section

THE $910,000,000 newspaper publishing industry (the largest single branch of the industry) is represented in the War Production Board by the Printing and Publishing Division which maintains a special Newspaper Section of which M. G. Sullivan is Chief. Directly assisting him in the Section are Circulation Unit Chief Carroll Hanson and Production Unit Chief Leon A. Link. Both Messrs. Sullivan and Hanson are comparatively new members of the Division. Mr. Sullivan, aside from being circulation director of the Gannett Group of Newspapers in normal times, also is

Regularly, R. J. McClelland is vice president of Fred'k H. Levey Co., Inc., Philadelphia printing ink makers. Whenever he's needed, he's printing ink consultant for Printing and Publishing Division—interprets all orders affecting the making of printing ink coming out of other WPB industry divisions.

president of the International Circulation Managers Association. Mr. Sullivan is urging savings in newsprint consumption by all publishers so as to prolong application of another cut. When and if another cut comes probably it will be on a graduated scale, providing for lesser cuts to smaller papers and the heaviest cuts to the larger newspapers.

Of the personnel in the Newspaper Section, Production Unit Chief Leon A. Link probably bears the widest acquaintance throughout the country among newspaper executives, especially those from the production side of the industry. In point of service, Mr. Link is one of the oldest members of the Printing and Publishing Division. He has addressed many publisher and mechanical executive conferences, consistently preaching ways and the means for compliance with the aims and objects of the Printing and Publishing Division with respect to the production side of the industry.

Normally, Mr. Link is production manager of the Cleveland *Plain Dealer*.

At the present time Mr. Link's efforts are being directed toward presentation of plans for voluntary proportional compliance by the smaller newspapers with the newsprint conservation provisions of WPB's Newsprint Order L-240 and the salvaging of discarded machine parts, particularly brass composing machine matrices, as specified in Machinery Order L-226. He is the author of the proposal whereby the composing machine makers are encouraging users of their machines to dispose of old matrices, secure receipts from their local junk dealer, and in turn send the receipts to the manufacturers who will maintain a credit on their books against the future purchase of new replacement matrices.

Enthusiastically, Mr. Link related that while the smaller daily and weekly newspapers are exempt from the newsprint curtailment order L-240, yet over 200 publishers have voluntarily reduced their column widths to 12 picas in order to effect an overall reduction in newsprint consumption. Mostly, this has been accomplished by purchasing a new 12-pica mold liner for their composing machines which enabled them to reduce their sheet stock sizes. By cutting down on a saw the single and multiple column spacing material it has not been necessary to purchase new leads and slugs.

Magazine Section

IN addition to functioning as Assistant Director of the Printing and Publishing Division of the War Production Board, Walter J. Risey, jr., is also Chief of the Magazine and Periodical Section, actively assisted by James I. Burns. This Section represents an industry whose products, according to the last census, have a value of $468,846,754, and in all probability has expanded greatly in volume since the 1939 Government census.

Mr. Risley pointed out that the one order directly affecting magazine publishers is the War Production Board Limitation Order L-244. This order restricts all magazine publishers to the specific amount of print paper they may use, or cause to be used, for the printing of their magazine or magazines. The base period of this order is the year 1942. Publishers using more than 25 tons of print paper per calendar quarter are restricted in 1943 to 22½% per calendar quarter to the amount of print paper used during the base period. Publishers using 25 tons or less of print paper per calendar quarter are limited by calendar quarters in 1943 to the larger of the following amounts:

1—The amount used in the corresponding calendar quarter of 1942, or

2—25% of the amount used during the year 1942.

It should be noted that persons proposing to enter into a publishing enterprise in 1943, who do not have a base period usage, must of necessity appeal to the Printing and Publishing Division, Ref: L-244, requesting the establishment of a base period quota. Naturally, with paper a critical material the Division weighs and screens very carefully before making any recommendation to the Appeals Board for the granting of a base period quota.

In most cases on other critical materials entering into the manufacture of magazines, securing of those materials are the problems of the publisher's supplier.

HOW A CURTAILMENT ORDER IS CONCEIVED AND BORN

MANY printing executive readers of *Printing Equipment Engineer* have wondered just how the Printing and Publishing Division of WPB proceeds with the preparation of a curtailment order for civilian consumption once it has been notified by a Materials Division of WPB that an order is necessary because a certain material is not produced in sufficient quantities to satisfy both war and civilian materials production requirements. Promulgation of a curtailment order may be necessary because of any other sufficient reason such as reduced production of materials due to diminishing manpower in the industry which produces the material. The 10-point outline shown below was prepared by Deputy Director E. W. Palmer.

1—Necessity for Curtailment
(Factual data supplied by Materials Division WPB)
2—Study Made by Staff of Printing and Publishing Division
Plan developed for orderly and adequate program of curtailment
3—Advisory Committee (or Committees or Task Groups) Called into Session
to consider need and make recommendations
4—Order Drafted in Division
5—Order reviewed by legal counsel and put in legal verbiage
6—Order Circulated
for five days' review by *all* Divisions of WPB
7—Order revised (if necessary) to implement recommendations
8—Order circulated for two days' final review
9—Order goes to Order Clearance Committee
10—Issuance of the Order

Book Section

MANY printing executives do not know that the $339,000,000 book publishing industry is the third largest specialized section of the printing industry in size in the United States, being superseded in volume only by the newspaper and periodicals publishing branches of the industry. It is only natural, therefore, that the book publishing industry should be represented in the Printing and Publishing Division of WPB by competent executives. The Book Section is supervised by Chief Harry F. West. Mr. West is assisted by Publishing Unit Chief Meiric K. Dutton.

"The book printers and publishers", said Mr. West, "have extended admirable cooperation with the War Production Board. Pending issuance of Order L-245 for book paper, authoritative representatives of the book publishing industry, serving on the Book Advisory Committee, suggested at the time the order was being formulated, that if it became necessary the industry could get along with a greater reduction than 10% of the base period. The reduction in consumption of book paper would be effected by either expanding the page type areas and consequently reducing the margins to the minimum or by cutting down on the basic weight of the paper and binding materials." To illustrate, he said the industry was willing to forego luxury in the making of books, so that by exercising new economies, a $3 book could be sold for $2, but in a more compact form.

Planographic (Lithographic) Section

THE burgeoning lithographic industry (enthusiasts claim in excess of $250,000,000 annual take now) is well represented in the Printing and Publishing Division by the Planographic (Lithographic) Section. Chief of the Section is John M. Wolff, jr., president of the Wolff Printing Co., St. Louis. He is assisted by Harley O. Potter of Fleming-Potter Co., Peoria, Ill. Mr. Wolff has been connected with the Division since January 1942. When asked if his Section supervised the entire industry on matters coming before the Division, Mr. Wolff indicated that the contacts of the Section with other WPB Divisions are rather diversified. He said: "Practically all lithographic production is covered by Paper Limitation Order L-241, and our Section passes on all problems that arise in the lithographic industry. We must collaborate with the Machinery and Priority Sections of the Printing and Publishing Division on all lithographic problems. Also, we contact the Chemical, Copper, Zinc, Rubber and the Pulp and Paper Divisions regarding the supply of various materials and the industry's needs for the same."

In addition to these duties, Mr. Wolff attends Industry Advisory Committee meetings of other divisions of WPB to discuss how any of the Printing and Publishing Divisions might affect their industries.

Mr. Wolff proudly declared that the lithographic industry is cooperating 100% with all WPB restrictions. He added that paper is the biggest problem at the present time.

Specialized Products Section

LOANED to the War Production Board on Pearl Harbor Day by Gilman-Fanfold Corporation, for a period of a few months, Systems Engineer Stephen H. Harrington has been busy with industry affairs ever since. He is now Chief of the Specialized Products Section. He is assisted by H. L. Kemp. In this section are

handled a variety of printing and related process matters for the Printing and Publishing Division, including rotogravure, metallic and non-metallic printing plates, wallpaper, loose leaf and blank book binders, tags, labels, office forms of all kinds, envelopes and others. Quite a variety, you might remark. Mr. Harrington's comment is: "I like variety—it makes things interesting."

In addition to supervising wartime affairs of the specialized processes, Mr. Harrington's section fostered development of non-metallic printing plates for lithography and letterpress now being used by the armed services, and a new plate for wire photograph service which makes possible direct production from a wirephoto machine.

Another Harrington activity was the School on Conservation for WPB which he conducted in 1942 which laid the foundation for the conservation program now being fostered by the armed services and WPB.

This 38-year-old Printing and Publishing Division executive is somewhat of a globetrotter. He received his journeyman typographical card in 1921 as a compositor and linotype operator, since which time he traveled over the United States and several foreign countries. He has operated his own plant and in addition is a designer of forms systems for accounting records, makes surveys for war plants and installs accounting systems.

He is enthusiastic about the future possibilities of the use of plastics in the printing industries—thinks we will have in the future plastic or composition linotype slugs, plastic movable type, plastic plates to replace newspaper mats and electrotypes, and original plastic halftone plates. Looking further into the future Mr. Harrington said we will have lighter and faster presses and will secure more detail in reproduction of printing plates.

Album of Names from Who's Who in the Printing Industry

These active printing executives comprising the Advisory Committees have a voice in the formulation of all orders promulgated by the Printing and Publishing Division. In formulating orders, all Divisions of WPB get their ear close to the ground by consulting active industry executives first. If you don't know it already, you will realize after looking over the names that a powerful cross-section of your particular branch of the industry is doing its best to prevent haywire decisions and to insure equitable balance between ravenous consumption of war materials and the necessity for your continuance in business. To participate in the preparation of a proposed limitation order, the members of the committee whose counsel is needed, journey to Washington, D. C., upon call for collective consultation with WPB officials. Director W. G. Chandler is Government Presiding Officer for the Newspaper Committee; Deputy Director Palmer for the remaining Committees.

Newspaper Industry Advisory Committee

E. F. Abels
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E. M. Anderson
Transylvania Times
Brevard, N. C.

O. G. Andrews
New London (Conn.) *The Day*

Earl D. Baker
Washington (D.C.) *Daily News*

Norman Chandler
Los Angeles *Times*

Robt. Choate
Boston *Herald Traveller*

Howard Davis
New York *Herald-Tribune*

Walter M. Dear
Jersey City (N.J.) *Journal*

C. R. Doyle
Boston *Post*

F. M. Flynn
New York *Daily News*

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Hearst Corp., New York

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Monroe (Mich.) *Evening News*

James L. Knight
Miami (Fla.) *Herald*

Charles Manship
Baton Rouge (La.) *Times & Advocate*

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Cleveland *Plain Dealer*

Fleming Newbold
The Evening Star
Washington, D. C.

J. M. North, Jr.
Ft. Worth (Texas) *Star-Telegram*

John W. Potter
Rock Island (Ill.) *Argus*

Richard Slocum, Gen. Mgr.
Philadelphia Bulletin

Charles A. Stauffer
Phoenix (Ariz.) *Republic Gazette*

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New York *Times*

S. E. Thomason
Chicago *Times*

Frank E. Tripp
Gannett Newspapers
Elmira, New York

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M. M. Wilkerson
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A. H. Brewood, Inc.
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R. R. Donnelley & Sons Co., Inc.
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Ace Electrotype Co.
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Racine, Wis.

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The Tenacity Mfg. Co.
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Charles R. Hadley Co.
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Superior Wall Paper Co.
Joliet, Ill.

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Cook Paint & Varnish Co.
Kansas City, Mo.

W. H. Yates
United Wall Paper Factories, Inc.
Chicago

Labor Advisory Committee

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Charles V. Ernest, Intl. Ptg. Pressman and Asst's Union of No. Amer.
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William J. Riehl, Pres., Lithographers Intl. Protective Ben. Assn.
Bores Shiskin, A. F. of L.
Milton Murray, Pres., American Newspaper Guild
Aaron Schneider, Director, Graphic Arts Div., United Office and Prof. Workers' of America

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Thomas J. Lynch, Chief of Labor Section and Asst. to Director, Printing and Publishing Division, WPB

EDITORIAL NOTE:

FROM time to time, complaint is made by mechanical and production executives that they have difficulty in understanding WPB orders (particularly the L Orders). Their complaint is that the orders are of complicated construction and are couched in legal language which makes it difficult for the layman to grasp the meaning. *Printing Equipment Engineer* sympathizes with these executives who in all cases want some simple explanation of the terms of the various orders. This feeling upon the part of printing plant executives is intensified as time passes and the orders are multiplied or are amended by WPB to meet the current situation.

Some of the larger printing and publishing plants do not have difficulty with WPB orders because one person in the organization has been appointed a specialist to follow through on WPB orders, both with respect to purchases and to observance of the limitations as they apply to the plant. In turn, the man who is appointed for the purpose acts in an advisory capacity to all executives in the plant.

Our only advice to executives is that they take sufficient time out to study the orders because it is an extremely difficult matter for anyone to translate the terms of every WPB order in simple language in print much less attempt to explain why certain conditions or limitations are imposed.

For many months now, *Printing Equipment Engineer* has been printing reports of orders affecting the Graphic Arts industries. These reports have been simplified as much as possible by stripping from each report certain portions of the order under discussion which are not of immediate concern to executives.

Immediately following we are printing some detailed information with respect to the Controlled Materials Plan (CMP Reg. 5) which was first discussed in the March issue of *Printing Equipment Engineer*. In this article information is given about (1) The application of the order to printing plant maintenance, repair and operating supplies; (2) The ever-present inventory restrictions; (3) Definitions of the terms used in the order; (4) Exceptions to the order with respect to certain operating supplies; (5) Some specific items included under the order; (6) The purchase order certifications; (7) Procedure for securing production materials; and (8) Explanation of procedure under CMP Reg. 5 for purchasing major items in the printing plant, the purchase of these items being involved with other WPB orders and/or regulations.

In closing this foreword to the following article, we want to observe that the printing plant executive is, or should be a perrenial student and investigator, and lastly we apologize for the necessity of having our printer set the article in 6 pt. type—so it can be printed in this issue of *Printing Equipment Engineer*.

CMP — *Its application to the Graphic Arts Industry—Information on its provisions broken down for benefit of mechanical and production executives*

THE Controlled Materials Plan (CMP), effective April 1, 1943, places aluminum, copper and steel (including wrought iron) under a controlled program for production and use. The Plan also effects a control over other materials and products to the extent that such materials and products are incorporated into products which also contain controlled materials. Since the end products of Printing and Publishing contain no controlled materials except stitching wire which is normally chargeable to operating expense, CMP **may not** be used for securing the normal production materials of the industry such as paper, binder's board, glue, cloth, ink, etc. These materials are not subject to allotment symbols or to preference ratings.

By far the widest application of CMP in the Graphic Arts Industry is with relation to maintenance, repair and operating supplies, hereinafter referred to as "MRO", which are the subject of "CMP Regulation No. 5."

Maintenance, Repairs and Operating Supplies

CMP Regulation No. 5, issued February 9, 1943 governs the procedure by which a manufacturer or producer may secure MRO supplies for his producing plant (but **not** for any sales outlets or service organizations). This Regulation furnishes an automatic rating for obtaining MRO supplies both (1) in the case of controlled materials which must be obtained by the use of the "MRO" allotment symbol and (2) in the case of other materials or products which must be obtained with preference rating assistance. In practice, the combination symbol and rating, "AA2-MRO," will actually be used as shown in the examples herein.

All provisions of any applicable priorities regulation or any order of the War Production Board (including orders in the "E", "L", "P", and "M" series), must, however, be fully observed in applying the allocation symbol and preference rating under CMP Regulation No. 5.

Schedule II of CMP Regulation No. 5 contains the listing, "Printing and Publishing." This classification, which includes all the recognized Graphic Arts Industries (printing and publishing of newspapers, magazines and books, commercial printing, engraving, electrotyping, stereotyping, photoengraving, lithographing and photclithographing, photogravure and rotogravure printing, machine and hand typesetting, bookbinding and related industries), assigns to these industries the Preference Rating of AA2. It also assigns to these industries the CMP Allotment Symbol, "MRO".

Quantity Restrictions

This combined rating and symbol, "AA2-MRO," is a blanket rating which printers and publishers may apply in the purchase of MRO supplies without further special authorization, but only within the specific quantity restrictions outlined in paragraph (f) of CMP Regulation No. 5. Under this provision MRO supplies may be purchased during each calendar quarter of 1943 only in an aggregate amount of one-fourth of the producer's total expenditures for MRO supplies during the calendar year, 1942. (Fiscal periods may be substituted for calendar periods in those cases where producers are operating on a fiscal year basis). In the case of both 1942 and the calendar quarters of 1943, the aggregate amounts are to be calculated on the basis of total MRO supplies, not on the basis of only those supplies which require allotment symbols or preference ratings or both.

Inventory Restrictions

In addition to the above outlined quantity restrictions, inventories of controlled materials are limited by CMP Regulation No. 2 to not greater than such quantity of any

item as would be required by current practices to be put into use during the succeeding 60 day period. Furthermore, the "practicable minimum working inventory" provision of paragraph 944.14 of Priorities Regulation No. 1 applies to all materials and products. Specific "E", "L", "P", and "M" Orders also further restrict or specify the procedure for securing of MRO supplies, and these orders are not relaxed by the provisions of CMP Regulation No. 5. Examples of such orders are:

(a) copper for photo-engraving is, by Order M-9-c, limited in each calendar quarter to 60% of the consumer's aggregate usage in the corresponding quarter of the year 1940;

(b) zinc for photo-engraving and lithographing plates is, by Order M-99, limited in each calendar quarter to 50% of the amount by weight of zinc put into process by the consumer in the corresponding quarter of 1941;

(c) copper for electrotyping and gravure plate-making is, by Order M-9-c, limited in each calendar quarter to 60% of the consumer's aggregate usage in the corresponding quarter of the year 1940, and it is further specified in this order that 75% of this copper must be in the form of scrap rather than new anodial copper (the effect of this being that, in a given calendar quarter, such platemaker shall use not more than 15% in the form of new copper anodes and not more than an aggregate of 60% in the form of both copper anodes and copper scrap of his total copper consumption for the corresponding quarter of 1940).

Neither the **use** nor the **acquiring** of any material in excess of the provisions of any "E", "L", "M", and "P" order is authorized under CMP (either through the MRO provisions or through application on Forms CMP-4B or CMP-4A), or through application on Form PD-1A, except in the event of a special appeal being granted in accordance with the appeals procedure as stated in the applicable order.

Definitions

The following definitions of MRO supplies apply with relation to CMP Regulation No. 5.

1. "Maintenance" means the minimum upkeep necessary to continue a facility in sound working condition. "Repair" means the restoration of a facility to sound working condition when the same has been rendered unsafe or unfit for service by wear and tear, damage, failure of parts or the like. Neither maintenance nor repair, however, shall include the improvement of any plant, facility or equipment, by replacing material which is still usable with material of a better kind, quality, or design, except as provided in paragraph (3) below.

2. "Operating supplies" means any materials or products which are normally carried by a person as operating supplies according to established accounting practice and are not included in his finished product, except that materials included in such product which are normally chargeable to operating expense may be treated as operating supplies. The term shall also include such items as hand tools, customarily purchased by the particular employer for sale to his employees for use only in his business, in those cases where they would constitute operating supplies under established accounting practice if issued to employees without charge. The term shall not include any of the nine items in List A of CMP Regulation No. 5.

3. In addition, there may be included as MRO supplies, minor items of productive capital equipment and minor capital additions or replacements not exceeding $500 (excluding cost of labor); provided, that no capital equipment, addition or replacement aggregating more than $500 in cost shall be subdivided for the purpose of coming within this definition, and, provided further, that the acquisition and use of materials for construction shall be subject to the provisions of Conservation Order L-41, as amended from time to time.

(**Note:** It is particularly to be noted that this paragraph does not relieve the graphic arts producer from conforming entirely with the provisions of Order L-226 with reference to graphic arts machinery which is more than $25 in value and which was delivered to the original user on or after May 1, 1937.)

Exceptions to CMP Reg. 5

A few items which are usually considered as "operating supplies" appear in List A of the Regulation as being specifically excepted from treatment under the procedure set forth in CMP Regulation No. 5. No one is authorized to use "AA2-MRO" in ordering these supplies. They are:

1. Fabricated containers required for packaging products;
2. Printed matter and Stationery;
3. Paper, paperboard, and products manufactured therefrom; molded pulp products;
4. Fuel or electric power;
5. Office machinery or office equipment (except repair parts therefor);
6. Clothing, shoes or other wearing apparel (with certain exceptions which are not ordinarily used in the Graphic Arts Industries);
7. Automotive replacement parts;
8. Automotive maintenance equipment;
9. Cellophane and similar transparent materials derived from cellulose having a gauge of less than .003" and cellulose caps and bands of any gauge.

It is particularly to be noted that purchasers of **Printed Matter and Stationery** are not to apply any preference rating on their order for these materials under CMP Regulation No. 5; and that Priorities Regulations No. 3 and 11 have been amended so that ratings may not be extended for the purpose of such purchases. The term "Stationery" as used here refers only to printed matter and items such as letterheads, envelopes, and forms.

Some Specific MRO Items in the Graphic Arts Industry

Certain materials used in the Graphic Arts Industry, and which according to established accounting procedure in most plants are included under MRO as being normally chargeable to operating expense, include:

1. **Stitching Wire** for use in binding;
2. **Tying Wire** and **Steel Strapping** for use in bundling and packaging;
3. **Rope** for packaging;
4. **Copper and Zinc** for use in making printing plates, but **only** in the case of plate-making done within a printing plant in which the printing plates are to be used, not in the case of platemakers to the trade. (See below, "Procedure for securing Production Materials" for procedure to be used by platemakers to the trade).

Certifications

There are three separate forms of certification which may be made under CMP Regulation No. 5 for use in securing (a) copper and steel for use in maintenance and repair, (b) aluminum for use in maintenance and repair, and (c) parts and operating supplies. In the interests of simplification, CMP Regulation No. 7 carries a single form of certification which may (but need not) be used in lieu of **any other certification** required by any CMP regulation to be endorsed on a delivery order (usually such delivery order being the purchase order) or to be furnished therewith.

The text of this certification follows:

"The undersigned purchaser certifies subject to the penalties of section 35(A) of the United States Criminal Code, to the seller and to the War Production Board that, to the best of his knowledge and belief, the undersigned is authorized under applicable War Production Board regulations or orders to place this delivery order, to receive the item(s) ordered for the purpose for which ordered, and to use any preference rating or allotment or symbol which the undersigned has placed on this order."

Such certification shall be signed manually or as provided in Priorities Regulation No. 7.

In addition to this certification, items under Order L-226 and items under Order L-221 and E-2-b will require separate certification as provided by these orders. Other "E", "L", "P", and "M" orders may also require separate certification.

Procedure for Securing Production Materials

Except as covered in the preceding account of MRO supplies, very few materials used in the Graphic Arts Industries are subject to allocation or priority assistance.

Any controlled materials (steel, copper and aluminum) needed in these industries for use in the product, and to be physically delivered as a part of the product (except stitching wire), must be secured only through use of Form CMP-4B. The principle uses for this procedure in these industries will be copper for use in trade photoengraving plants and brass for use in bookbinders' dies. Photoengravers, electrotypers, and gravure plate-makers who manufacture plates for the trade will apply for their copper on Form CMP-4B; and trade photoengravers will extend the preference rating received in connection with such allotment for the purchase of zinc for use in their photoengraving production schedules. Trade photoengravers and other platemakers to the trade who use zinc but not copper, will apply for such zinc on Form PD-1A.

Production materials other than controlled materials and those needed in the production schedule into which the controlled materials are incorporated and which require priorities assistance, will continue to be requested on Form PD-1A. It should be noted that Form PD-1A was revised as of January 16, 1943, and all applications after April 15, 1943 must be made on this revised form.

Summary of "MRO" Procedure Under CMP

Plants engaged in the manufacture of "Printing and Publishing" (which term includes the allied trades previously enumerated herein) may (within the quantity restrictions of paragraph (f) of CMP Regulation No. 5, and within the inventory restrictions of CMP Regulation No. 2, of paragraph 944.14 of Priorities Regulation No. 1, and of any applicable "E", "L", "P", or "M" order relating to the specific material or product), order:

(1) **Graphic Arts Machinery,** as listed in Schedule A of Order L-226, by:
- (a) Filing Form PD-556 and securing approval in accordance with paragraph (g) of Order L-226; and, in the event the value of the machinery is $500.00 or less,
- (b) Applying the symbol "AA2-MRO" to the delivery (purchase) order, and
- (c) Applying the certification required by CMP Regulation No. 5 (or the simplified certification from CMP Regulation No. 7 as quoted hereinbefore).

(2) **Printing Machine Parts** for machinery listed in Schedule A, and Printing Supplies listed in Schedule B, of Order L-226, by:
- (a) **Either** delivering with the purchase order or sending within 30 days to the producer or distributor a used part of similar kind or size for each replacement part or operating supply ordered **Or** applying certification called for in paragraph (f)(2)(i) of Order L-226; and
- (b) Applying the symbol "AA2-MRO" to the delivery order; and
- (c) Applying the CMP certification, as in (1)(c) above.

(3) **Electric Motors,** which are under Order L-221 as amended April 22, 1943, by:
- (a) Complying with paragraphs (b) and (c) of Order L-221; and
- (b) Applying certification called for in paragraph (d) of Order L-221; and
- (c) Applying the symbol "AA2-MRO" to the delivery order; and
- (d) Applying the CMP certification, as in (1)(c) above.

(4) **Router Bits and Other Cutting Tools,** which are under Order E-2-b, by:
- (a) Applying certification called for in paragraph (b)(1) of Order E-2-b; and
- (b) **Either** delivering with the purchase order or sending within 30 days to the producer or distributor a used part of similar kind or size for each replacement part or operating supply ordered **Or** applying certification called for in paragraph (f)(2)(i) of Order L-226; and
- (c) Applying the symbol "AA2-MRO" to the delivery order; and
- (d) Applying the CMP certification, as in (1)(c) above.

(5) **Copper and Zinc Sheets,** for use **only** in making photoengravings for use in the plant where the photoengravings were made, by:
- (a) Applying the symbol "AA2-MRO" to the delivery order; and
- (b) Applying the CMP certification, as in (1)(c) above.

(6) **Shipping containers,** which are under Order P-140, by:
- (a) Applying the preference rating AA-5 only, with no certification or other symbol.

(7) **Stitching Wire,** Tying Wire, Steel Strapping, Chemicals, Rope and all other MRO supplies covered in the definition given in CMP Regulation No. 5, which require allocation or priority assistance, and which are not affected by special certification or other provisions of "E", "L", "P", "M" orders, by:
- (a) Applying the symbol "AA2-MRO" to the delivery order; and
- (b) Applying the CMP certification, as in (1)(c) above.

CPM Regulation No. 5 Changed

As we go to press with the May issue of *Printing Equipment Engineer,* we learn that the rating and symbol "AA-2X-MRO" which is used by printing and publishing plants on purchase orders for maintenance, repair and operating supplies, has been changed to "AA2-MRO."

We also learn that quantity restrictions which is explained on page 18 of this issue (col. 3) under the subhead "Quantity Restrictions," have been changed so that quantities of maintenance, repair and operating supplies *under* $5000 per year are *not* restricted.

While we are not fully informed, we understand that minor capital addition procedure, as explained in paragraph 3, (col. 1), on this page, also has been changed.

Full details of these revisions to CMP Reg. 5 as it relates to printing and publishing plants in their purchases of maintenance, repair and operating supplies will be published in the June issue of *Printing Equipment Engineer.*

EDITOR'S NOTE

COMMENCING shortly after printing equipment manufacturers had tooled up for making war materials, printing executives have been regaled with predictions about the "startling and revolutionary" kinds of equipment which manufacturers will have available once peace-time conditions have been restored. Definitely, many of these statements are empirical. Nevertheless, printing executives have been more or less intrigued by these predictions.

Now that six press manufacturing executives have spoken publicly as reported here by Associate Editor Reiser, you may construct your own conception of the Future Printing Press. Of one thing you may be certain, "improvements will be achieved by canvassing users of presses that are now in use, . . . and demands will govern the kind of machine you'll buy." These statements are obvious, because the press manufacturer is sensitive to industry's demands. In turn, your demands create research and development costs—but we believe the printing industry is agreeable to paying for these costs, since they represent a fair charge which is unavoidable if progress is to be made.

Meanwhile, don't overlook the fact that the already established and inexorable laws of Old Man Obsolescence will be the determining factor in future press purchases.

PRESS OF THE FUTURE? *Executives*

from six press manufacturing companies present views — Composite of ideas indicates what it will be like

By ADAM HENRI REISER

THE desire to get important technical information is based on many things. It may be the curiosity instinct, or the will to improve and keep abreast, or ahead of your competitor, or the pessimistic attitude of "Show me, Brother"; or it may be due to a combination of these. The thirst for knowledge was exhibited in a large turnout at the last meeting of the New York Craftsmen's Club (April 15), where a panel of executives, from six different press manufacturing companies spoke on the topic *Press of the Future.*

Listed in the order of their appearance, the speakers were: Harry A. Porter of Harris-Seybold-Potter Company; Fred G. Heitkamp of American Type Founders; Benjamin L. Sites of Miehle Printing Press & Mfg. Co.; Dan Casey of Miller Printing Machinery Company; Capt. Gilbert H. Higgins of R. Hoe and Company, and C. I. Rundlet of C. B. Cottrell & Sons Co. Summerfield Eney, jr., of the Champion Paper & Fibre Co., who functioned as master of ceremonies, handled the introductions in his usually witty manner.

Machinery and Manpower Contribute to War Effort

What were my impressions as handled by the speakers? Well, the play of emotions set in motion by these men was varied. First, and most important, came the thought hammered home by each speaker, "The better press won't come soon.

"We are at war and all our industrial efforts are devoted toward winning that war." Where two plants were used by one manufacturer prior to hostilities, eight now are used in the war effort. A standing exhibit at the Chrysler Building, New York City, will contain many of the intricate contributions the graphic arts industry is making to the war effort.

But manpower too is making contributions. In fact, one of the main reasons for the conference was to bring home to printing craftsmen the importance of their calling. Too many men were leaving the industry for the war effort. In need of all the skilled help that can be mustered, the industry is said to feel this loss. For even as in the past, advancement is prompted to a large degree by Craftsmen's suggestions.

More than that, however, skilled craftsmen are also needed to keep the machinery running, at this time, when no replacements are possible. For it is elemental to keep existing equipment in good running order.

The press builder is intensely interested in the continued performance of these presses. Comes mechanical failure and there ensues the inevitable brawl which usually winds up with the buyer expressing grave doubts as to the heredity of the press builder. In view of the greater demand that will be placed upon present equipment, and the fine performance of it up to now, it is only fair to call attention to the thought that has been put into its construction. In one instance, a heavy service type of press has been found to have cost but $5 per month for replacement parts. Another type of which there are but three in these United States, with no more being built, has been found to run close to 3,000,000 im-

Describe Future's Printing Press

Their minds now mostly on fabricating war equipment, a number of printing press manufacturers' executives took time out recently in New York at Craftsmen's Club meeting to satisfy Craftsmen's thirst for information about "printing press of the future."

1—Capt. Gilbert H. Higgins of R. Hoe & Co., takes his turn at the mike. Dan Casey, of Miller Printing Machinery Co., (not shown) participated in speaking program.

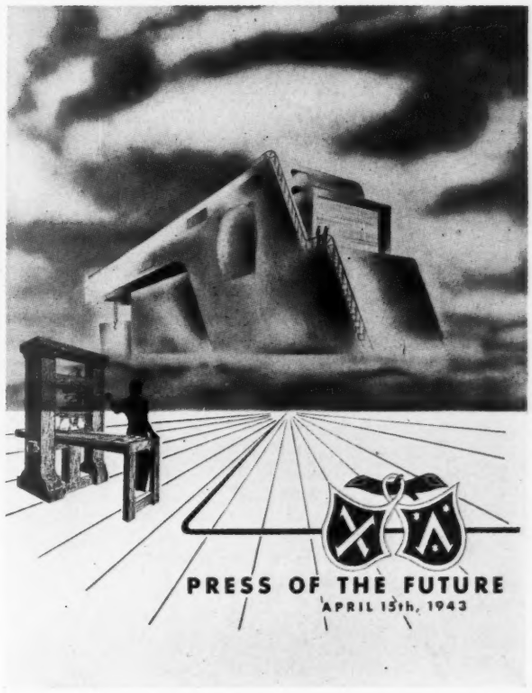
2—Benjamin L. Sites of Miehle Printing Press & Mfg. Co., discusses future's printing press. Gentleman in foreground ("reverse view") is C. I. Rundlett of C. B. Cottrell & Sons Co., who was on the speaking program.

3—Vice President Harry A. Porter (at the mike) of Harris-Seybold-Potter Co., offset-lith press manufacturers, was one of the speakers. At left of Mr. Porter is Fred G. Heitkamp of American Type Founders. At right is Master of Ceremonies Summerfield Eney, Jr., of Champion Paper & Fibre Co.

pressions on color work from one plate. Not only does this idea of planning and thought apply to the press builder but it also gives testimony to the thought that has gone into the production of the ink, plates and paper used in that printing.

While on the topic of paper, Summerfield Eney, the master of ceremonies, told of the changes that already have taken place in the manufacture of paper. China clay for coatings, and pulp from Finland for paper manufacture were used in the best paper prior to the war. Today, thanks to research and ingenuity, America is making a paper superior to any produced elsewhere, and is doing that from material produced in the USA.

As to new presses and equipment, the point was made that presses bought during the past few years will not be obsolete even after the war. Present equipment will be used by their owners for quite a while before press builders will be able to retool or convert for peacetime endeavor—probably six or eight months after peace is declared. In the interim between the war's end and resumption of peacetime business, the equipment now being used for producing material for the armed services, could be turned over to civilian production in the immediate postwar period.



One theoretical conception of future's streamlined cylinder press reproduced here in miniature. The folder announcing recent meeting in New York, is work of Herbert Kaufman of GPI. Six executives of press manufacturing companies spoke at New York Craftsmen's Club meeting.

What may Be Included in New Presses

But how about these newer press models coming after the war? Well, for one thing the canny executive will set aside funds so as to be in position to take immediate advantage of the newer models when they are marketed. With great industrial activity forecast in the postwar period through the modern improvements in synthetic rubber, plastics, new cars, planes and renewed interest in the last two named fields, there will be increased need for the printed word.

Post-war presses will be more attractive in design as well as being more improved. Blue prints cannot be aired because of wartime restrictions, but this much is certain—like the auto industry, press builders, too, are planning ten years ahead. Research is going on all the time with the postwar period receiving the benefit.

The theoretically streamlined design of a modern press depicted on the advertising piece sent out for the meeting and gotten up by Herbert Kaufman of General Printing Ink Corporation, was subscribed to by each speaker. Lavish praise was showered upon him for the fine job he did in producing that advertising piece.

Press changes will not be radical, but like yachts, cars and women, these presses, too, will have fine lines and grace. There will be refinement of machines rather than a complete change—a succession of small improvements rather than a totally new press. As in the past, improvements will be achieved by canvassing the users of presses that are in use. To a large degree, demands will govern the kind of machine you'll buy.

Specifically, the machine will be streamlined if it doesn't affect accessibility. In that, there will have to be a compromise by the engineers. Antifriction bearings; fewer form rollers; a greater use of the electric eye for the register of color work; automatic oiling; built-in lubrication with oil tight bearings; oil piped to all bearings; adjustments eliminated where not needed, but where needed they will be easy of access to enable checking with rapid, sure-fire setting; speed indicators with a common term of ft. per sec. per web travel; and a makeready means which will undoubtedly be improved in time and procedure are all indicated.

Surely more attention will be given to foolproof operation. Positive oiling will be one of the musts, for it is foolish to put trust of that function into the hands of a green and inexperienced kid with a squirt gun. It is needless to say that all these things will be included in the press of the future only if the buyer pays the cost. This cost should be beyond care. Emphasis of the buyer should be on "How much the machine will make for me", not "How much will it cost?"

These are the best thoughts of the evening. The best gag of the night? That was heard in the audience, but it will have to be censored. The best gag of the night by the speakers? Here 'tis: Hat floating down the Mississippi. "Wonder who that is drowned out there?" "That ain't nobody drowned—that's Old Man Brown. He mows his lawn, come heaven, hell or high water."

REPORT *of ANPA Mechanical Department Manager W. E. Wines stresses association's bulletin service*

IN the annual report of Manager Walter E. Wines of the Mechanical Department, to the American Newspaper Publishers Association, it is indicated that war problems have been occupying the minds of mechanical executives associated with member news papers. The inquiries directed to the department have been related mostly to WPB orders on supplies. "Apparently," it is reported by the manager, "the war has forced technical questions into the background."

In the opening portion of the report, the manager states:

"Although the output of Mechanical Bulletins during the year just closed has been somewhat below normal, publishers and other business office executives have probably read more of the Mechanical Department's material than usual, because the major part of it has concerned the government orders relating to newspaper supplies and has appeared in the weekly B Bulletins. For more than a year nearly all of the Mechanical Department's activity has been concentrated upon the everchanging supply situation."

With respect to the quarterly newsprint waste records, Mr. Wines' comment is as follows:

"The quarterly Newsprint Waste Reports have been issued as usual. It is interesting to note that the number of reporting offices has continued to increase, so much so that it was barely possible to squeeze the last report into the usual six pages. It has always been important to keep newsprint waste at a minimum, but in view of the present government order restricting the use of newsprint, the subject is more important than ever."

WARTIME PRODUCTS EXHIBITED

—in New York by 28 Printing Equipment Manufacturers—

Over 140 Items Shown

DURING the nights of Monday and Tuesday, April 19 and 20, an exhibit of more than 140 wartime products was on display in the automobile show rooms of the Chrysler building and in the Grand Ball room of Hotel Commodore, New York. The exhibited products were the work of about 28 manufacturers of Graphic Arts and related equipment.

The Graphic Arts Arsenal programs were held concurrently with the annual meeting of the American Newspaper Publishers Association. It is estimated that more than a thousand newspaper executives and many more people from New York and immediate vicinity attended the exhibit and programs on Monday and Tuesday evening.

The two program meetings were held in the Grand Ballroom of Hotel Commodore. At the Monday night meeting, Hon. A. E. Giegengack, U. S. Public Printer, presided as chairman. At the Tuesday night meeting dedicated to the newspaper publishers, President James Wright Brown of the Editor & Publisher Co., presided.

At both meetings, the U. S. Navy film entitled *Nazis Strike* and the *Army Fighting Films* were exhibited.

Demonstration of 75 mm Field Howitzer by U. S. Army Personnel and the 2Omm Anti-Aircraft Gun was given by U. S. Navy Personnel representing veterans of the naval war in the Pacific.

Speakers at both meetings were Lt. Col. Chester Mueller, and Lt. V. E. Smith, both of the U. S. Army's N. Y. Ordnance District.

For the musical part of the programs, the national anthem (Morina) was sung, accompanied by Miss Johnnie Hereford at the organ. The Ben Yost Male Quartette gave songs of the United Nations.

Following are the equipment and supplies manufacturers who participated in the *Graphic Arts Arsenal:*

American Type Founders
The Chandler & Price Co.
C. B. Cottrell & Sons Co.
Dexter Folder Co.
Duplex Printing Press Co., Inc.
The Goss Printing Press Co.
Harris-Seybold-Potter Co.
The W. O. Hickok Co.
R. Hoe & Co., Inc.
Interchemical Corporation (Champlain Division)
The C. M. Kemp Manufacturing Co.
Lanston Monotype Machine Co.
Ludlow Typograph Co.
Macbeth Arc Lamp Co.
Mergenthaler Linotype Co.
Miehle Printing Press & Mfg. Co.
Miller Printing Machinery Co.
Mohr Lino-Saw Co.
The Monomelt Co., Inc.
Morgans and Wilcox Mfg. Co.
Harold M. Pitman Co.
William Reid Co.
F. P. Rosback Co.
T. W. & C. B. Sheridan Co.
Vandercook & Sons
Wesel Manufacturing Co.
Wetter Numbering Machine Co.
Wood Newspaper Machinery Co.

CALLED "FORGE OF WAR" *—Cottrell*

Press Plant conversion hailed by army official at "E" Award ceremony

ADDRESSING the men and women of the Westerly, R. I., plant of the C. B. Cottrell and Sons Company, Lieut. Col. Charles Wayne Kerwood paid tribute to the wartime services of the entire personnel of the factory. He spoke at the ceremonies held on April 9 on the company's grounds, when the Army-Navy "E" was awarded for high achievement in the production of war equipment.

"No longer do you manufacture printing presses here at this plant," said Lieut. Col. Kerwood, "you have converted it into a forge of war". He then described the nature of the war equipment being made at the plant, its importance to armament industry, and the good effect to which it is being put by our soldiers fighting Japs in the Pacific battlefronts and fighting Nazis in North Africa.

The Army-Navy "E" Flag was accepted by Charles P. Cottrell, Jr., president of the company. Frederick W. Boulter, an employee of the firm for 46 of its 88 years, accepted the "E" pins from Lieut. James F. Morgan of the U. S. Navy. A tribute to the wisdom and character of the late Charles P. Cottrell was delivered by Judge Herbert W. Rathbun who presided as master of ceremonies.

Prior to the conversion of its Westerly plant to war work, C. B. Cottrell and Sons Company has been prominent as a manufacturer of high-speed, roll and sheet-feed, black and multi-color presses. The company's Claybourn division is located at Milwaukee, Wis.

PAC Clinics In Print

GENERAL Printing Ink's Herbert Kaufman, as editor, explains that the Printing and Advertising Clinics which have been sponsored by GPA, this year will be held via the now fashionable way—in print. The first of these in-print clinics has been published and is entitled *A Material Survey of the Graphic Arts Industry.* The content of the attractive 6 in. by 9 in. 24-page booklet is broken down into 6 parts—Composing Room Outlook by Robert L. Leslie of The Composing Room, Inc.; Photoengraving Outlook by Louis Flader of APEA; Availability of Printing Ink by Dr. Wm. F. Talbot of GPI; Availability of Paper by S. D. Warren Co.; Printing Presses in Wartime and Post-War Possibilities by Vice President Harry Porter, of Harris-Seybold-Potter, and Bindery Outlook by Jack Sloves of Sloves Mechanical Binding Co.

It is not difficult for a reviewer to pick out random statements—therefore, we recommend that you send for a complete copy of the booklet, since Mr. Kaufman states copies are available upon request.

Robert Leslie states: "Our big problem in the typesetting industry is workers —both skilled and unskilled. But even this is not altogether a hopeless problem."

Mr. Flader comments: "There is no shortage of skilled labor in the photoengraving industry and there is not likely to be a shortage, although maldistribution may create its effects in spots."

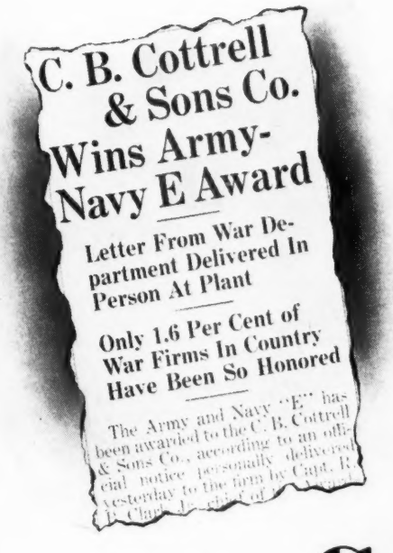
In a rather thorough analysis, Dr. Talbot discusses WPB's orders affecting the printing ink manufacturing industry; he also makes comment upon the many pigments and materials used in ink making, and assures the reader ". . . that for the immediate future at least there will be an adequate supply of printing ink materials to meet all printing needs."

Comment taken from remarks by S. D. Warren Co. indicate ". . . that a (paper) productivity of 80% cannot be maintained, and current estimates of the eventual rate of productivity in 1943 vary from 75% to 70%."

Harry A. Porter discusses the transition from peace-time printing to the kinds of printing demanded because of the war effort.

Under war conditions, the book-binding industry has had to perform a series of athletic exercises to keep well ahead of the restrictions imposed by war exigencies upon the use of many critical materials. Jack Sloves of the Sloves Mechanical Binding Co., discusses intelligently the real service which his industry can render the printer if it is permitted to do so. Cooperation between the customer and the binder under present conditions are paramount. "Viewing the picture as a whole," states Mr. Sloves, "the reaction is one of mingled encouragement and foreboding." This statement has reference to labor, materials, governmental restrictions and transportation. "But one fact remains unquestioned," he adds, "the industry can bind any book you have . . . but a continuance of this service is dependent upon intelligent cooperation with the binder."

BEHIND THIS "E" ARE MANY OTHER STORIES...


C. B. Cottrell & Sons Co. Wins Army-Navy E Award

Letter From War Department Delivered In Person At Plant

Only 1.6 Per Cent of War Firms In Country Have Been So Honored

The Army and Navy "E" has been awarded to the C. B. Cottrell & Sons Co., according to an official notice personally delivered yesterday to the firm by Capt. R. [illegible]

There are warm, homely, human stories of loyalty . . . of generation after generation of faithful, hard-working employees . . . of skilled, veteran craftsmen and eager youngsters . . . of people proud to turn their experience in printing press manufacture to new war equipment production.

There are technical, spectacular stories of progress...of New England ingenuity and enterprise . . . of precision problems met and mastered . . . of an 88-year search for product improvement, a continuing search often rewarded, never abandoned.

In office and plant alike, every man and woman at Cottrell is honored in being cited "for high achievement in the production of war materiel."

And, while the Army-Navy award testifies to the company's manufacturing policies and employee relations, the "E" flag will serve from now on as a guide to even greater effort.

C. B. COTTRELL & SONS CO.

Westerly, R. I.

New York: 25 East 26th Street • *Chicago:* Daily News Bldg., 400 West Madison Street • *Claybourn Division:* 3713 North Humboldt Avenue, *Milwaukee, Wis.* • *Smyth-Horne Ltd.*, Chipstead, Surrey, England

An Open Letter

To Commercial Plant Superintendents

DEAR EXECUTIVE—In the April issue of *Printing Equipment Engineer*, Charles V. Morris presented a bare outline itemizing the 15 Major Government Victory Projects in which advertisers and printers can be of incalculable assistance to the Government by furthering them. Here, in this issue, Mr. Morris amplifies the outline and shows advertisers and printers the ways in which assistance can be given and what action is needed to help put across these prime Government objectives.

We'll get off the immediate subject just long enough to show you how the Graphic Arts Victory Committee is helping Uncle Sam with the U. S. Rent Control Problem. The committee has issued (only for members of GAVC), a bulletin in which miniature illustrations of printed and die-cut forms are shown together with suitable copy, so that the advertiser and printer can talk intelligently to Mr. Landlord and to the advertiser in their printed messages.

Now, to get back to the immediate subject, following is Mr. Morris's valuable outline with explanatory remarks. We suggest, Mr. Superintendent, that you get in touch with the sales manager of your firm—perhaps you'll start him on his way singing.

1. RATIONING (Office of Price Administration)
   a. Point Rationing
   b. Establishing essentiality and community importance of volunteer Local Ration Boards
   c. Car Sharing

a. Educating the public in the proper use of point-coupons as currency is OPA's current most important public relations problem. Cooperation is sought among all advertisers directly or remotely concerned with retail sales and management.

b. A country-wide program in the interests of the Local Ration Boards and the volunteers who man them is in the offing. This campaign aims, first, to establish the Local Boards as vitally important cogs in the wartime economic machine; second, to honor the men and women who are serving in the "thankless" roles of administering rationing justice for their neighbors.

c. The need for new car sharing promotion plans looms larger as the rubber situation grows more serious. OPA is looking for the assistance of retailers, Chambers of Commerce, trade boards and employers in the formation of effectively operating Car Sharing Clubs.

2. TRANSPORTATION (Office of Defense Transportation)
   a. "I'll Carry Mine"
   b. Convention-by-Mail

a. The "I'll Carry Mine" campaign is a nation-wide effort urging shoppers to carry home as many packages as possible. Retail outlets, department stores, bakeries, are joining in this crusade, using displays, posters, stickers, window signs, envelope enclosures, folders and house organs to carry the message.

b. Conventions-by-mail are not revolutionary, but the use of this media as alternate for the flesh and blood meeting is now being urged by ODT.

3. CONSERVATION (War Production Board)
   a. "Make It Last"
   b. Salvage
   c. Care of Consumer Goods
   d. Care of industrial equipment
   e. Simplicity of design and models
   f. Substitution of scarce materials with plentiful.

a. "Make It Last" is the theme of the 1943 Conservation program. Advertisers are requested to carry the slogan in all their promotions that fit into the conservation campaign.

b. Salvage of all vital war materials continues as a major program. Scrap metals, rubber, silk and nylon fabrics, fats and greases are needed in increasing quantities.

c. d. With little likelihood of available new models of many machines, both domestic and industrial, the necessity for new "make it last" instruction booklets is urgent.

e. f. Designers of important wartime machines and implements are urged to simplify all models. Merchandising authorities are likewise being asked to strip lines of all unnecessary models and designs.

7. PRODUCTION DRIVES (War Production Board)
   a. Incentive Drives
   b. Absentee-ism

a. War Production Drive headquarters sees the need for specific, dramatic incentive campaigns, built to the requirements of the individual war plant, and around the individual plant workers. For best results laud workers to the highest, WPB insists; at the same time ask for MORE AND MORE production. WPB discourages use of "canned" or syndicated incentive material.

b. The major WPB production drive for 1943 is centered upon Absenteeism. WPB urges industry's all-out cooperation with labor to stem this increasing tide. WPB warns against any publicity effort that isn't based upon a thorough study of the conditions causing wave of absenteeism.

8. NUTRITION AND HEALTH (Office of War Information)
   (Department of Agriculture)
   a. New Nutrition Drive
   b. Victory Gardens

a. Point rationing altered the very successful "U. S. Needs US STRONG" Nutrition campaign. The new Nutrition Program, under the joint direction of OWI and the Department of Agriculture, has a new spearhead which will soon be made available to the food industry. This program is essentially an education plan for better use of existing food supplies. Government expects the food and allied industries to support the new program as they did the 1941-42 campaign. OWI estimates $50,000,000 worth of private advertising was contributed to the overall success of the former plan.

b. Victory Gardens have struck the public's fancy, and advertisers with a stake in the development were quick to join the parade. The Department of Agriculture hopes for continued interest as the season progresses.

9. MANPOWER (War Manpower Commission)
   a. Localized Campaigns
   b. Training New Employees
   c. Training Leaders
   d. Enlisting crop corps workers

a. War Manpower Commission sees the need for more localized Manpower programs. No two areas are faced with identical problems. WMC urges cooperation of Labor-Management Committees to determine solution to individual circumstances.

b. c. Training new employees and training older hands for important posts are essential industrial education programs. WMC makes available special instruction methods but urges individual plants to adapt their own courses of instruction to their own specific needs.

d. Farm Labor is needed now and will be needed in greater quantities at harvest time. WMC is embarking on a Crop Corps campaign to recruit sufficient civilian help for the exigencies of the food situation. Any and all advertisers can assist in this campaign.

10. ANTI-INFLATION (Office of Price Administration)

a. Rent Control, a successful project under OPA jurisdiction, is again given important promotion. The Rent Control program is basically responsible for the stabilization of rents, and OPA is launching a new plan impressing renters with the importance of protecting the homes and apartments which they rent. The spearhead of this campaign is the slogan "Uncle Sam Keeps Your Rents Down—Keep Your Home UP." The National Association of Real Estate Boards is the sponsoring group.

11. TREASURY DRIVES (Treasury Department)
   a. Overall War Bond Drives
   b. Payroll Deduction Plan

a. War Bond campaigns are continuous. When not officially sponsored by the Treasury or by individual community War Savings Staffs, industrial production drives are ntere d about the War Bond theme. All advertisers can devote a part of their printed and lithographed promotion budget to the sale of War Bonds.

b. Payroll deduction plans are still rated importantly in the Treasury Department's selling programs. All employers can constantly assist in this work.

12. MORALE (Office of War Information)
   a. The Enemy

a. Morale campaigns best serve the definite purpose when focused on the wickedness and cruelty of the enemy. Humerous treatment of the topic . . . ridiculing the enemy . . . treating him as a comic character . . . is not successful in teaching hatred of him. The enemy isn't funny. OWI wants the enemy painted the blackguard he is, and wants all American bitterness and hatred directed at him.

13. SECURITY OF WAR INFORMATION (Office of War Information)
   a. Guarding War Information

a. Keeping any war information, *however slight*, from the enemy should be every American's sacred pledge, OWI insists, and urges advertisers to stress this theme in their promotion of the "Hush-hush" program. Americans must be continually warned to protect information of troop movements, ship sailings, convoy formations, production records, etc. A deadly serious approach is essential.

14. BUSINESS CLINICS (Department of Commerce)
   a. Better Business
   b. Community Action

a. Wartime rules and regulations have imposed severe hardships upon small businessmen. The department of Commerce, through its field offices, is embarked upon an education program intended to benefit small business via an exchange of wartime business ideas and practises. National associations, dealer organizations, trade papers and local trade boards may join hands with the Department of Commerce in furnishing the assistance where it is needed most urgently.

b. Community action in wartime is the basis for worthwhile peacetime community action, the Department of Commerce believes, and proceeds to carry its program, via its "Small Town Manual," to the small communities of the country. It seeks to build better business conditions for small villages and towns which now may or may not be benefitting from war industries. Advertisers to small town business men may tie-in with this program.

15. WAR FUND DRIVES (National War Fund)
   a. Community-War Chests embracing all war relief drives

a. By Presidential order all war-relief organizations *must* campaign in October of each year until Victory, and for official direction of such drives the National War Fund has been organized. Where Community Chests act as collecting agencies for "home front" welfare groups, Community-War Chests now embrace all war relief organizations, American and United Nations. Where Community Chests are non-existent, War Chests are formed for single annual collection drives. The American Red Cross is assigned the month of March for its campaigning.

Litho Groups View Miehle Film

Members and guests representing seven lithographic trade associations and organizations including the Lithographers National Association, New York Association of Photo - Lithographers, Eastern Lithographers Association, the Young Lithographers and the New York Litho Club, met together at the Building Trades Club in New York on April 14 to inspect the Miehle Wartime Printing Library and view the Miehle film, *Printing for Victory*. An added feature was a talk by Frank Gervasi, war correspondent for *Collier's Magazine*, who described his experiences with the British Eighth Army in Africa.

C. P. Titsworth, manager of Miehle's New York office, opened the meeting by presenting the Miehle film, *Printing for Victory*. He was followed by Frederick G. Rudge, of William E. Rudge's Sons, who described the Miehle Wartime Printing Library and explained how it could be used to sell wartime printing and lithography. Other speakers participated.

Linotype Conducts Operator and M-O Refresher Courses

Maintenance Clinics Proving Popular With Plant Personnel Who Attend Conferences

Clinics are being held to analyze and discuss the functions of composing machines; to diagnose mechanical ills due to lack of care or proper maintenance; and to prescribe remedies and adjustments intended to improve the product and reduce the worries of operators and maintenance personnel.

Without exception, the reports from those who have attended the Linotype Mechanical Clinics have been so enthusiastic that the greatest difficulty of the various units may be in regulating itineraries to meet demands for this constructive service to the industry.

The Reason for These Clinics

Difficult conditions have been created by the loss of operators, machinists and maintenance help. From the smaller towns and cities and metropolitan centers alike the manpower problem in composing-rooms is causing production headaches. It is not a theory, but a serious condition.

The trade is welcoming the Linotype Mechanical Clinics as one of the best means of getting expert information on individual problems and checking up on maintenance methods. Many of those who have attended the Clinics are regular operators who want to brush up on adjustments, ask questions concerning specific troubles—in fact, the Clinics are "Refresher Courses" for such regulars.

The Clinic leader discusses and explains the functions, principles and adjustments of Linotypes, and the correct maintenance methods, illustrated by enlarged mechanical drawings. Each one attending is given a copy of *Linotype Maintenance Manual*. This is the new technical reference book, fresh from the press, which is used during the Clinic sessions.

Following the discussion of each section of the charts, an opportunity is given for relevant questions to be asked. This question period has proved to be very popular.

What Does the Industry Think?

Quotations from unsolicited letters received show what is thought of the Clinics:

"The Clinic was very beneficial and an inspiration. Such cooperation is appreciated and will reflect in greater war effort. Thanks for everything."

Vernon T. Sanford, secretary of the Oklahoma Press Association wrote to Brooklyn, following the Clinics in his state, "Promoting the undertaking was a pleasure to us, since from the first we were convinced that the Clinics would render a service of unusual value to our publishers. Their enthusiastic response and appreciation was even greater than we expected. So, we feel indebted to you for making these worth-while Clinics available, and wish you every success in promoting the project in other states."

Another letter reads, "You are to be congratulated on your enterprise in undertaking to educate users in conservation of equipment and material."

A southern publisher wrote, "Two of our mechanical men were on hand for your all-day session and they are still talking about the splendid manner in which it was conducted. We feel that we have been repaid many, many times for our time and expense in sending these men to the conference and we wish you to know that we greatly appreciate the cooperation of the Linotype Company. It's up to all to conserve as never before, and Mergenthaler has pointed the way. These men were greatly impressed."

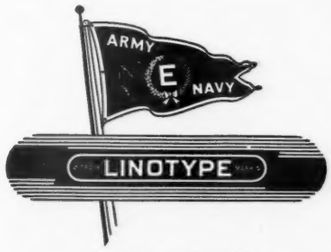
From Oklahoma comes a report, saying, "Yes, the Clinics went over with a bang! There was much enthusiasm shown by everyone who attended. The Clinics must have awakened many to the fact that machines need more care than they have been getting."

The Linotype Mechanical Clinics are doing a big job in a big way and the industry is the beneficiary.

Mechanical Hygiene

To help the industry to meet its manpower problem, Linotype has inaugurated a series of free Mechanical Clinics, or Refresher Courses, across the entire country.

Keep in touch with your Linotype Agency, who will advise concerning details of the Clinic to be held in your section. Watch for the Notice!



Linotype Caledonia Bold, Garamond Bold No. 3 Italic and Excelsior

Equipment and Supplies

Backboard for Maintaining 16 Gauge Engraving Plate Thickness

ONE of the problems presented to photo-engraving and departmental executives in printing plants upon the introduction of the 18 and 21 gauge thicknesses of plate stock was that of a simple means for maintaining the standard 16 gauge thickness so that the new thinner gauge plates could be used interchangeably on already existing standard bases and blocking wood to provide type high mounting. The simplest approach to this problem seemed to be a liner or backing material which could be applied to the back side of the engraved plate before mounting it on the regular 16 gauge basing material.

For this purpose, the Atlantic Zinc Works announces this month a new photo-engraving thin plate gauge backing material which is called Backboard.

Manufacturer makes the following claims for Backboard: (1) It will rout without leaving a fibrous burr and without burning the routing tool; (2) It will not lose thickness under compression; (3) It will withstand immersion in water without swelling or softening; (4) It is of even thickness all over every board.

Backboard, with or without factory adhesive coating, is available in the following thicknesses—0.015 in. for use with 18 gauge plates, and 0.032 in. for use with 21 gauge zinc or copper plates. Sizes of Backboard are as follows: 15x36 in., 18x36 in., 18x24 in. and 24x36 in.

Manufacturer states only two or three minutes are required to convert either an 18 or 21 gauge plate into a 18 gauge finished engraving through the use of Backboard. Backboard is useful in combination with 21 gauge metal because a large plate is flimsy when routed unless it has been mounted with a strong backing board.

Adhesive Coated Backboard is applied to a flat as follows: (1) Cut the Backboard, allowing ¼ in. overlap around the zinc or copper flat to avoid adhesive spreading onto the printing frame glass. (2) Peel the protective wax paper from Backboard. (3) Place in the vacuum frame or Washington hand press a thick blotter or other heat-resisting material to protect the rubber blanket from the heated flat. (4) Heat the unrouted flat to about 200 deg. F., then lay the flat face down in the frame or press. Apply gummed side of Backboard to back of flat and apply pressure immediately. To obtain best results, the zinc should be too hot to handle when pressure is applied. Two or three minutes under pressure will fasten the Backboard permanently to the flat. Cool and proceed as with the 16 gauge plate. When using 21 gauge metal (which cools quickly) it is advisable to heat the board also.

To apply the plain Backboard: A number of adhesives such as rubber cement, photo-engravers' glue, waterglass and several specially prepared adhesives can be used to obtain the same results as with the factory coated board. The adhesive, however, must be applied evenly to the board and pressed to the zinc at a temperature recommended by the adhesive manufacturer.

Electrotyper's Flux

THE E. W. Blatchford Company has developed a flux as an alternative material for use in place of the 15% tinfoil for application to electrotype shells before filling in the shells with backing metal. The flux is contained in glass jars and is a semi-liquid mixture. It is applied to the back of a shell with a soft brush. It is claimed by the manufacturer that when used in sufficiently large quantities the flux is cheaper than 15% foil. Manufacturer's advice is that the flux be used sparingly and the mixture works best when warmed. Acids contained within the flux function to make it unnecessary to wash the back of the shells with backing-up solutions before applying the flux. Further information may be obtained from E. W. Blatchford Company direct or in care of *Printing Equipment Engineer*.

Gummed Two-Side Tape for Mounting Cuts

AMERICAN Publishers Supply has announced a paper 60 lb. gummed two sides tape for mounting cuts to wood or metal bases. It is supplied in 2 in. wide rolls. The width is approx. newspaper column width. In application, the tape is first moistened on one side either through a regular 2 in. moistener, with a brush, or by wetting it with a sponge or moist felt. The moistened side is then applied to the base and pressed down firmly. When the cuts are ready for application to the prepared base, the top side of the tape is moistened with a sponge or moist felt and the cut is pressed down firmly on the moist tape. The base and cut are then ready for trimming, or for insertion in the page form. Further particulars may be obtained from American Publishers Supply, or through *Printing Equipment Engineer*.

Sensitive Emulsion for Litho Plates

Le Roy's Research Laboratories has announced a new sensitive emulsion made from a polymersed plastic base.

Originally, this emulsion was designed for spraying onto metal for template work by converting huge metal sheets into actual photographs of blueprints.

The introduction of this polymersed plastic base emulsion into the lithographic field, states its sponsor, promises many changes in the industry itself because the sensitizer possesses sufficient speed for projection work directly onto the metal plates. Use of this sensitizer eliminates the need for large negatives, as well as eliminating the use of arc lights and vacuum printers. The sensitizer can be applied to used litho plates because the plastic substratum with which the old or new litho plates is coated before the emulsion is applied, is readily coated on used plates provided the surfaces are not crinkled or torn.

The plastic substratum has been compounded in such a way as to possess the appropriate molecular structure to exert the proper molecular and mechanical adhesion.

The metal plate is degreased, and clamped in the whirler in the usual manner and the given amount of plastic paste is placed on the center of the plate. The lid of the whirler, which contains a bank of infra-red lamps, is closed. During the whirling, the plastic substratum covers the plate and the whirling is maintained from 2 to 7 min. By that time, the plate is covered with a layer of shiny thermo-plastic which can be grained in the conventional manner.

The plastic coating has metal plate coinciding factors of co-efficiency, tensility and distensibility which prevent what is known as "plastic creep."

The polymersed sensitizer itself is applied to the plastic coated plate in the conventional manner, although not under the usual lighting conditions.

The printing of the metal plate from the halftone or line cut negative is a matter of ordinary photographic routine and the projection of the halftone or line negatives from this point on is a matter of ordinary photographic enlarging. It can be done by means of a photographic enlarger or the sensitive printing plate can be put into the copy board of the engraving camera and the negative can be projected on it through the back of the camera by means of a suitable light housing box which is fitted on the back of the camera.

The developing of the metal plate differs from the ordinary lithographic principles but is still a matter of ordinary photographic developing in the same manner as a negative or positive print are developed. After development, the plate is reduced to the lower oxides of chromium by a special compound containing an acid-oxidizing agent that converts the silver halides into insolubility without any further action of light. The plate is then whirled again for the desired heat polymerization, the developing ink is applied and the plate "water developed" in the usual lithograhicp manner. Deep etch plates are handled in practically the same manner.

The resulting plate has first-class hydrophillic properties and is resistant to acid, water and alkali. The plate is free from any danger of oxidation and it is asserted, has ten-fold the life of the conventional image because the entire base image is formed of polymersed plastic.

Director of Research Le Roy, stated the full effects of silver halide plastic sensitizer and plastic substratum will not

be fully realized until lithographers visualize the potentialities of projecting an enlarged or reduced image directly on the printing plate. For example, he stated that only one screen ruling is needed because the screen ruling is enlarged or reduced according to the enlargement and reduction of the negative image on the plate. The saving on layout and step and repeat negatives will be appreciated. Linotyped proofs pulled onto an acetate transparent base could be projected up to any size and many tricks of photographic distortion could be practiced.

Another feature, stated the Director, is that the plastic base sensitizer has an indefinite life whereas conventional sensitizers made from albumen, glue or gelatine, being organic matter, are susceptible to depredation by organisms.

Rechargeable Flashlight Batteries

THE Ideal Cummutator Dresser Co., in an announcement, makes it plain that the Ideal Rechargeable Flashlight Battery is not generally distributed for casual use, but under present conditions is directed to larger companies whose employees use flashlights.

The Ideal rechargeable storage battery for hand flashlights was introduced about three years ago. The company now calls attention to the fact that WPB has curtailed flashlight dry cell production over 50%, hence, states that each of the rechargeable batteries can replace up to 400 or more dry cells of conventional capacity. The Ideal rechargeable battery fits all two-cell 1¼ in. size D flashlight cases; dimensions are 1¼ in. diam. by 4¾ in. high; weight, 7 ounces. Case is transparent plastic; extra heavy plates; polarity—positive pole on bottom; capacity, 2 amp. hrs.; volts, 2.2 v. open circuit; discharge rate, 450 mils; 600 mils. maximum. The battery is claimed to be spill-proof. Distilled water is added by unscrewing filler cap.

Several types of battery chargers are available, in single, automobile and gang models of 6 and 12 cell capacity.

TECHNICAL LITERATURE

Production and Mechanical Executives wishing to secure copies of the literature described below may do so by addressing the manufacturer direct, or by sending request to Printing Equipment Engineer.

Miniature Bearings Bulletin

File size bulletin No. 43, entitled *Miniature Precision Bearings*, has been published by Miniature Precision Bearings, Keene, N. H. In the bulletin is shown the complete line of radial and pivot type bearings from ⅛ in. to $\frac{1}{16}$ in. o.d. in both steel and non-magnetic beryllium. Inside double spread tabulation shows dimensions and load ratings at varying speeds for each size and type of bearing, as well as showing them in actual size.

Coloright Inks

Coloright Inks is the title of the 11th folder in the Color Facts Series issued by Eagle Printing Ink Company, Division of General Printing Ink Corporation. This folder contains a check-list and swatches of eighteen hues adapted to all forms of printing and advertising. These colors represent the most popular colors as determined by consumer tests and sales records. In addition, a portion of the folder is devoted to *Colorcues* and the review of a number of facts and principles which will be helpful to the printer and advertiser.

Paint from Waste Printer's Ink

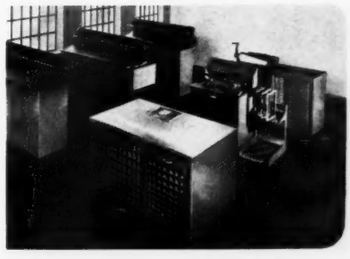
According to the *Technical News Bulletin* of the National Bureau of Standards, for March, a plan to make paint out of waste ink scraped from the presses at the Bureau of Engraving and Printing has been under discussion by the general superintendent of the District of Columbia Penal Institutions and the Bureau of Engraving and Printing. Early in the year, samples of green- and black-ink pastes were received from the D. C. Penal Institution at Lorton, Va., with the request that the Bureau furnish information on what to mix with these pastes to make paint. After some experimental work, mixing formulas were developed and sent to the superintendent, who informed the Bureau that he is planning to turn out 70,000 gallons of paint a year.

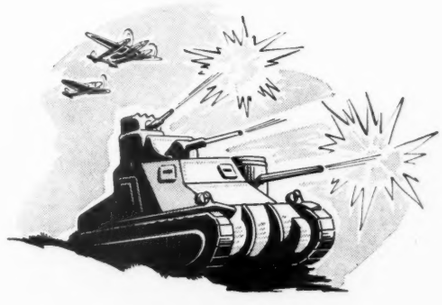
Insurance for Employees

Security for employees of the H. D. Roosen Company, of Brooklyn, N. Y., manufacturer of printing and lithographing inks, has been established through the company's adoption of a group program which includes life insurance, and surgical operation and hospital expense benefits. Announcement of the plan was made by R. D. Roosen, president of the concern. The plan is being underwritten by the Metropolitan Life Insurance Company on a cooperative basis.

YOUR COMPOSING ROOM AND THE WAR

The war means shortages on the Home Front . . . both of materials and manpower. Until the war is over, your composing room will suffer more and more from lack of sufficient and well qualified labor. It is important, therefore, that it be arranged and equipped in the most efficient manner. Hamilton equipment offers the solution by making possible good arrangement and providing compositors with opportunities to work productively ALL THE TIME.





Hamilton's large steel plant is devoted almost entirely to war production . . . a job we are proud to do. We are still able to supply you with all regular wood items, however, and also have quite a good stock of steel items available which can be supplied in accordance with the W.P.B. limitation order.

See your Hamilton dealer for full information about the Hamilton items available and how they will help you meet the war-time problems.

Hamilton MANUFACTURING COMPANY • TWO RIVERS, WISCONSIN

Gauge Insures Exact Alignment

THE composition of advance mathematical work, which is carried on extensively at the Waverly Press, Inc., Baltimore, involves the casting of superior and inferior characters in six alignments: Regular superior and inferior and, in addition, superior and inferior to regular superior, and superior and inferior to regular inferior (Fig. 1).

The casting of Monotype sorts for these small characters presented problems of alignment which could not be met with the ordinary type of alignment gauge and eyepiece. To overcome this difficulty, the Bausch and Lomb Optical Company was asked to design an alignment gauge which would magnify small characters so that fine variations in alignment could be observed and corrected. The gauge produced for this purpose has met the requirements not only of mathematical sorts, but has proved useful in general sorts casting as well (Fig. 2).

$x^2 \quad x_2 \quad x^{2a} \quad x^{2_a} \quad x_{2a} \quad x_{2_a}$

Fig. 1—At the Waverly Press in Baltimore, the casting of superior and inferior characters in six alignments on the Monotype for advance mathematical work is involved. These alignments are: Regular superior and inferior, superior and inferior to regular superior, and superior and inferior to regular inferior. Here's a line of type containing all six alignments. The B. & L. alignment gauge shown in Fig. 2 makes it possible to position the different superior and inferior character alignments exactly.

To verify alignment, the line standard is first placed in the type holder at **A**. The magnified reflection of the lining edge of the standard then appears on the ground glass screen **B**. This screen is scribed with three hairlines, one of which is then made to correspond to the edge of the line standard by means of a screw adjustment. Once the hairline has been set no further adjustment of it is required until a different alignment is wanted. The line standard is then removed from the type holder and each character put in its place in turn as cast.

The gauge is mounted for convenience directly back of the Monotype sorts casting machine and, because the reflected image is rather dim, the instrument is partly covered by a hood which darkens the screen and heightens contrast. The reflected image is magnified about 12 diam. so that very fine adjustments are possible. Since the installation and use of the gauge, no sorts have been rejected for inaccurate alignment.

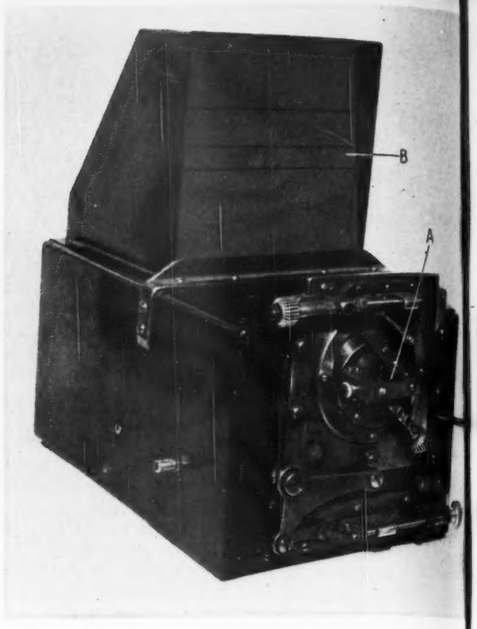


Fig. 2—This B. & L. type character alignment gauge enlarges type characters 12 diam. The type character is placed in the holder at **A**. *The image of the character is shown on the ground glass screen* **B** *by reflected light. Three hairlines are scribed on the screen. One of the hairlines and the edge of line standard are made to correspond by means of a screw adjustment. After proper adjustment of line standard and hairline on screen have been obtained, the standard is removed and each type character is put in its place in turn as cast.*

1943 P-Double-E Reference Issue will tell you where to get it

MANUAL *of* STEREOTYPING

by JOSEPH D. GOGGIN

In this book, the author discusses the three primary factors in stereotyping — equipment, materials and manipulation. Since the stereotyping process largely is an Art and the results to be obtained in good plate-making are dependent upon the coordination of equipment, materials and manipulation, a reliable guide for securing this coordination is essential.

In preparing this book, the author has drawn upon his extensive practical experience and study in the Art. The all-important preparation of the form from which the mold is to be made and the molding and casting procedures are thoroughly discussed from the standpoint of the peculiar requirements of the process.

A Glossary and Encyclopedia gives definitions of terms used in the stereotype process. Bound in black cloth, gold stamped, 256 pages, size 5½ in. by 8 in. Price, $5, cash with order. Handling margin makes it necessary that cash accompany all orders for books.

PRINTING EQUIPMENT Engineer
1276 WEST THIRD STREET, CLEVELAND, OHIO

Handbook for Pressmen

BY FRED W. HOCH

This is a practical technical discussion of all platen and cylinder press operations in the commercial pressroom. The language used by the author is *your* language—the text is written simply and pertains to the operations actually performed in the pressroom.

To give an idea about the contents of the book we quote some of the chapter titles:

- Methods of Line-up
- Presswork
- Makeready, Platen Presses
- Makeready, Cylinder Presses
- Overlays and Makeready
- Close Register
- Setting the Rollers
- Overcoming Offset
- Workups—Cause and Remedy
- Slurs—Cause and Remedy
- Repairing Plate Batters
- Ink
- Color Mixing and Matching
- Metallic Inks

Some of the more unusual operations to many pressrooms are covered by the author in the following chapters:

- Printing Water Color Jobs
- Two Colors on One-Color Press
- Patent Base Speeds Imprint Jobs
- Printing on Cellophane
- Printing Facsimile Letters
- Details of Embossing
- Hot-Plate Embossing and Paneling
- Gum Label and Embossed Seal Printing
- Die-Cutting Methods
- The Stencil Screen Process

And much other valuable pressroom information. This book is bound in brown cloth, contains 236 pages, 6 in. by 9½ in., is well illustrated with line diagrams and a number of charts.

Price $3 per copy

Because of the small handling margin please enclose cash with order.

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Here's Why

EASTERN BACKUP BOARD for THIN ZINC is BEST

1. Routes perfectly clean without burr with regular router bit.
2. Saws and cuts easily. Easy to apply.
3. Eliminates necessity of using more than one height of base and slug.
4. It's a special type fibre board exclusive with Eastern.

Sizes
.015 or .032
15 x 36
18 x 36
18 x 24
24 x 36

★ Eastern originated the prepared Backup Board.

★ Protective tissue on gumming is pink for 18 ga. zinc, white for 21 ga. zinc.

★ It's cheaper to use Eastern Backup Board and thin gauge zinc than 16 ga. zinc.

★ Patent has been applied for.

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CROWELL-COLLIER PATENT *has double-barreled objective — one for civilian purposes and the other as means for helping to win the war under gratis license agreement*

A REMARKABLE instance in which the prime objective of a patent has been overshadowed in its original application by one of major importance to war manufacturing industry in general has just recently come to light. The patent referred to is the one invented by Chief Engineer Axel Lundbye and assigned to Crowell-Collier Publishing Co., Springfield, Ohio, for a chrome-plated doctor blade for rotogravure printing cylinder, which permits operating the doctor blade to wipe the ink from the cylinder while it is operating at 20,000 r.p.h. for 110 hrs. without chipping or dulling. The chrome plating and treating of the knife edge of the doctor blade makes the chrome an integral part of the steel and allows the instrument to be sharpened repeatedly with no loss in effectiveness.

Subsequently, a variation of this process and treatment was applied to inexpensive metal cutting tools used on equipment in manufacturing operations. The cutting edges of tools thus treated have from four to eleven times the life of the best unplated tools tested. Some time ago, Crowell-Collier was requested to test drills treated by this process on 1 in. armor plate. Using a 7/8 in. drill, a hole was drilled through the armor plate in 42 and a fraction seconds.

The process of plating and treating is fast and effective and can be applied to many metallic items, such as gears, cams and drills.

After tests revealed the utility of the process in metal-cutting manufacturing operations, Crowell-Collier carried a page advertisement in *American Magazine* and one issue of *Collier's*, offering the process royalty free for the duration to manufacturers engaged in war work. As a result, more than 1000 letters of inquiry were received from manufacturers all over the country. The company has announced that many manufacturers found the treated samples so satisfactory that they have taken advantage of the royalty-free licenses granted them by The Crowell-Collier Publishing Company and are now processing and treating their own cutting tools.

Just to demonstrate to our readers how effectively the process has worked out in manufacturing operations, we quote a few statements from manufacturing executives appearing in a booklet published by Crowell-Collier: "On the 1/4 in. chucking reamers used on aluminum we averaged 3000 pieces before plating and 30,000 pieces after you had plated them for us . . . The form-shaving tool produced approximately 30,000 pieces against 3 or 4000 pieces when the tool was unplated . . . We drilled over 8000 holes in phenolic sheet without having to regrind, whereas an ordinary drill needed regrinding after about 4000 holes. . . . We have found the cutting tools treated by your process to give approx. 50% longer life when used for cutting copper . . . The number of pieces we broached per sharpening increased 600 to 1000 pieces."

Process Evolved by Lundbye

In the Patent Section of *Printing Equipment Engineer* for April, Invention, Inc., reported the patent which was invented by Chief Engineer Axel Lundbye and assigned to Crowell-Collier. It is well known that Crowell-Collier magazines largely are printed by the gravure process. Use of the doctor blade as a necessary part of the gravure printing process no doubt led up to development of an improvement in its design so as to secure more effective wiping means and longer blade life, so as to produce better printing and at the same time to reduce press stoppages for changing to a fresh blade and consequent reduction in work spoilage.

Laminated Blade

Mr. Lundbye's description of the doctor blade is as follows:

> 2,313,830. DOCTOR BLADE for a rotogravure printing cylinder which functions for at least 700,000 or 800,000 revolutions of the cylinder before the blade has to be removed and resharpened, and at the same time has a reduced tendency to scratch the cylinder. The blade consists of two laminated thin metal strips having a thin layer of lubricating compound such as graphite compressed between the two strips which serve to lubricate the blade as it bears against the rotating printing cylinder of the press. The lubricant has a binder therein such as bitumen so that it may be slightly heated and then compressed between the strips to hold them together. The forward portions of the metal strips are ground to a sharp wiping edge and are also chromium plated to provide a hardened surface.

Further details about the doctor blade mechanism are that to assure thorough wiping of the excess ink from the gravure cylinder, the wiper knife (doctor blade) moves with a slight longitudinal reciprocal movement. The entire operation—from ink to cylinder to printed paper—takes only fifteen-hundredths of a second. Over the etched surface of the gravure cylinder this speed is maintained 24 hours a day for five days a week—at the end of which the knife edge remains in good condition. The chrome plating permits the blade to be sharpened repeatedly with no loss in effectiveness. It is stated in the Crowell-Collier booklet referred to above that the process has proved equally effective on a variety of cutting tools used by other companies—making possible an increase of from 100% to 1000% in the life of the tools.

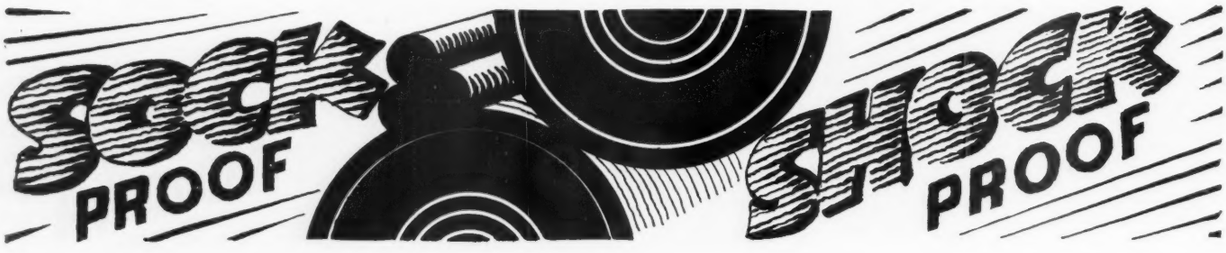
ANPA *Mechanical Conference in Print*

FOR the first time in its history, the annual ANPA Mechanical Conference will be held "in print." The Committee is hard at work preparing the bulletins on newspaper production and plant management under war conditions. We bespeak an interesting and lively Conference in Print because the discussions are being prepared by practical newspaper printing plant executives.

Printing Equipment Engineer is participating in the Conference in Print. Equipment and Supplies Manufacturers are also participating in the ANPA Mechanical Conference in Print—they will have Exhibits in this June issue. First thing, and just as is usual at the "live" conference, you will see these Manufacturers' and Suppliers' Exhibits in the June Exhibits Edition of *Printing Equipment Engineer*. By all means, attend the Exhibits and make it your business to talk afterwards, through the mail, with the exhibitors-in-print. No doubt many of these exhibits will reflect their operation under war conditions and consequently the services which they can give to you.

The editorial section of this June issue will contain live, up-to-date articles written especially for *Printing Equipment Engineer*.

Meanwhile, we hope you'll exert every effort to make the ANPA Mechanical Conference in Print successful in every way. Quoting a prominent newspaper mechanical executive, "The way to get the most out of Mechanical Conferences is to participate in them."



TINGUE PRESS BLANKETS AND DRAW SHEETS

Tingue Printing Press Blankets take up the shock of excess "sock" and eliminate many of the breaks caused by too much squeeze that affects the strength of the paper fibre, thereby weakening the web.

When your presses are equipped with Tingue Blankets—or Draw Sheets, you will get MORE impressions—yes, BETTER impressions—and you can "keep 'em running"—faster—and longer.

Let us show you how you can save on makeready time.

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Printing Patents — *Automatically regulated air-cooling for line-composing molds — Dropping out screen from negative highlight areas — Separation images for four-color reproduction—Improvement in previous roto press web tension device — Report covers patents issued Mar. 30 to April 20*

This data is compiled exclusively for *Printing Equipment Engineer* by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c for each separate patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,315,396. BINDING FOR EASEL-TYPE BOOK, such as a stenographer's copy book, designed to be stood upon a table for easy reading. Leaves of the book are bound to a flexible back formed by two layers of integrally joined flexible glue with an intervening strip of super or loosely woven fabric, the under layer of glue making contact with one edge of each leaf and cover, and the outer layer of glue being finished upon its exposed face with a spread of relatively soft, short fibers such as rayon. Covers are prescored with a bend line, and, due to the flexibility of the back, may be swung backward in an arc to form an easel regardless of the location of the page opening. Invented by Earl M. Buckland and Gordon J. Juttner, Chicago, and John M. Marchok, Elmwood Park, Ill. Assigned to Rockwell-Barnes Co., Chicago, Ill. Application July 27, 1942. 8 claims.

2,316,205. SHEET TRIMMING DEVICE, especially adapted for trimming the edges from a number of transversely slitted sheets in order to form a number of strips, but also useful for trimming ordinary sheets. Invention provides a construction wherein the different sheets are held in a predetermined stacked relationship with their edges exposed for trimming. This obviates holding the sheets by hand and danger to the operator's fingers. Invention employs cutting wheels rather than pivotal knives which are often used in trimming devices of this kind. This is said to make it possible to trim a greater number of sheets at a time and to provide increased safety. Invented by Robert A. Williams, Chicago, Ill. Assigned to Ditto, Inc., Chicago, Ill. Application December 29, 1941. 12 claims.

Composing Room Equipment:

2,315,234. TYPOGRAPHICAL SLUG-CASTING MACHINE having an arrangement for automatically regulating the operation of a mold cooling medium such as an air blower which may be provided on the machine, thereby automatically controlling the temperature of the molds. A thermo-sensitive switch is associated with the air blower or other cooler and is arranged to respond to heat changes in an active mold and to initiate and terminate operation of the blower automatically as the temperature of the mold varies under the prevailing casting conditions. Arrangement is such that regardless of the size of the slugs being produced or the rate of casting, the temperature of the mold may be maintained within a predetermined range of variation according to the advance setting of the thermoswitch. Invention obviates the necessity of attention and regulation by the operator to suit changing conditions. Invented by Wilfred J. Turenne, Fayville, Mass. Assigned to Intertype Corp., Brooklyn, N. Y. Application May 14, 1941. 13 claims.

Feeding, Folding, Delivery:

2,315,646. SHEET FEEDING MECHANISM applicable to apparatus for feeding sheets from the bottom of a stack, for instance envelope blanks. Formerly with certain types of sheet material and of sheet-withdrawing means, the portion of the next-to-the-bottom sheet over the bottom support has had a tendency to shift with the bottom sheet as the latter is withdrawn. Thus though the next-to-the-bottom sheet is initially retained by a device at the stack edge, it has tended to buckle and to project from the stack when the retaining device is withdrawn. To prevent this the present invention provides a thin, flat blade-like member, generally termed a shovel, which slides parallel with the sheets along the under surface of the next-to-the-bottom sheet into appropriate holding position before withdrawal of the bottom sheet commences. Invented by Abraham Novick, Flushing, N. Y. Assigned to F. L. Smithe Machine Co., Inc., New York, N. Y. Application January 21, 1941. 18 claims.

Miscellaneous:

2,314,913. SILK-SCREEN STENCIL, for producing attractive stippling and shading effects. Lacquer or enamel is first applied to the screen, coating all but the area of the design which is to be shaded. The exposed design is then sprayed with a material, such as glue size, which is resistant to lacquer or enamel, but easily removable by water or other solvents not injurious to the lacquer or enamel coating. The spray may be controlled to produce dots of varying size and density to obtain the degree of shading desired. Lacquer or enamel is then applied over the resist sprayed design to fill in all the bare screen areas. When the lacquer coating is dry the screen is washed in a suitable solvent to remove the resist material leaving those areas of the screen formerly covered by it free to the passage of ink, or dye. Through the use of several consecutive screens, multi-colored designs including a multitude of shades and color gradation effects may be obtained. Invented by Herbert A. Weiller, Los Angeles, Calif. Assigned to Weiller Processes, Inc., Corporation of New Jersey. Application April 17, 1940. 5 claims.

2,316,768. METHOD OF MAKING ALL METAL SCREEN STENCILS for use particularly in applying designs to articles with irregular surfaces where the screen is preferably premolded to shape, as described in patent 2,213,237. A thin sheet of metal is mounted on an imperforate metallic support. A stencil design is etched in the sheet without etching a corresponding design on the sup-

(*Continued on Page 41*)

Here's NEWS worth noting!

The Daily Engraver
WAR RESTRICTIONS MADE EASIER –
NEW BACKBOARD BEST YET SAYS EXPERTS..
NEW METHOD OF BRINGING THIN SHEETS UP TO STANDARD

WAR RESTRICTIONS on zinc and copper weights have added many difficulties to the photo-engraving business. But now, Backboard makes things easier.

Today, engravers can use 16, 18, and 21 gauge zinc side by side, and, within 5 minutes of the time the plates come out of the etching bath, every one can be brought to standard 16 gauge thickness.

Inexpensive, economical BACKBOARD is the answer.

And Here's the Inexpensive Part

A sheet of Backboard, to which a special adhesive has been applied in the factory, costs only 21¢ for size 18 x 36, in lots of 25 sheets or more.

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ZOMO ELECTRIC ZINC ◆ A-Z ELECTRIC ALLOY

These three newspapers were the winners in the 10,000 to 50,000 circulation group of the thirteenth Annual Exhibition of Newspaper Typography, sponsored by N. W. Ayer & Son, Inc., in Philadelphia. The *Christian Science Monitor* won the Francis Wayland Ayer cup in the metropolitan class. From left to right, the papers shown above in miniature are: Third Honorable Mention, Rochester (Minn.) *Post-Bulletin;* First Honorable Mention, Rutland (Vt.) *Herald;* Second Honorable Mention, Jersey City (N. J.) *Journal.* All newspapers in all classes were judged not only for front pages, but for all sections of the paper.

Christian Science Monitor Awarded Ayer Cup in Thirteenth Annual Typography Exhibition

IN the thirteenth Annual Exhibition of Newspaper Typography, conducted by N. W. Ayer & Son, Inc., of Philadelphia, the *Christian Science Monitor* was awarded the F. Wayland Ayer Cup on April 21. This paper was selected from among more than a thousand entries which was open to all English-language dailies in the United States. The award, as usual, was made on the basis of excellence in typography, makeup and presswork. The newspapers were judged not only for front pages, but for all sections of the paper. In other words, a paper must have consistently good inside pages as well as good front-page appearance.

In addition to the Ayer Cup award, honorable mentions were awarded to papers in the following circulation and format groups:

Standard-size papers of more than 50,000 circulation: First Honorable Mention: New York *Times*; Second Honorable Mention: Los Angeles *Times*; Third Honorable Mention: New York *Herald Tribune.*

Standard-size papers of from 10,000 to 50,000 circulation: First Honorable Mention: Rutland (Vt.) *Herald*; Second Honorable Mention: Jersey City (N.J.) *Jersey Journal*; Third Honorable Mention: Rochester (Minn.) *Post-Bulletin.*

Standard-size papers of less than 10,000 circulation: First Honorable Mention: Troy (N.Y.) *Record*; Second Honorable Mention: Hyannis (Mass.) *Cape Cod Standard Times*; Third Honorable Mention: Bradford (Pa.) *Era.*

Honorable mention in the classification of Tabloids regardless of circulation was awarded to *PM*, of New York. A special, unscheduled Honorable Mention was awarded by the judges to Hempstead (L.I.) *Newsday.*

The judges commented on the fact that the average newspaper has improved its typography and general appearance during the past year. The excellence of makeup, they pointed out, is especially notable in view of the fact that quick-breaking war news often requires last-minute changes. The improvement in typography and layout was most pronounced among newspapers of less than 10,000 circulation. Imprint of the war was obvious in the increased use of six and eight-column headlines by the majority of the entries, including many newspapers which had previously followed a more conservative policy.

"A study of the entries in the Exhibition," commented President H. A. Batten of N. W. Ayer & Son, "shows that American newspapers are successfully meeting the greatest challenge in their history: that of doing a large share of the job of maintaining public morale in this war emergency. Newspapers are being read with far greater interest than ever before. The demand for news is tremendous. The supply is likewise tremendous.

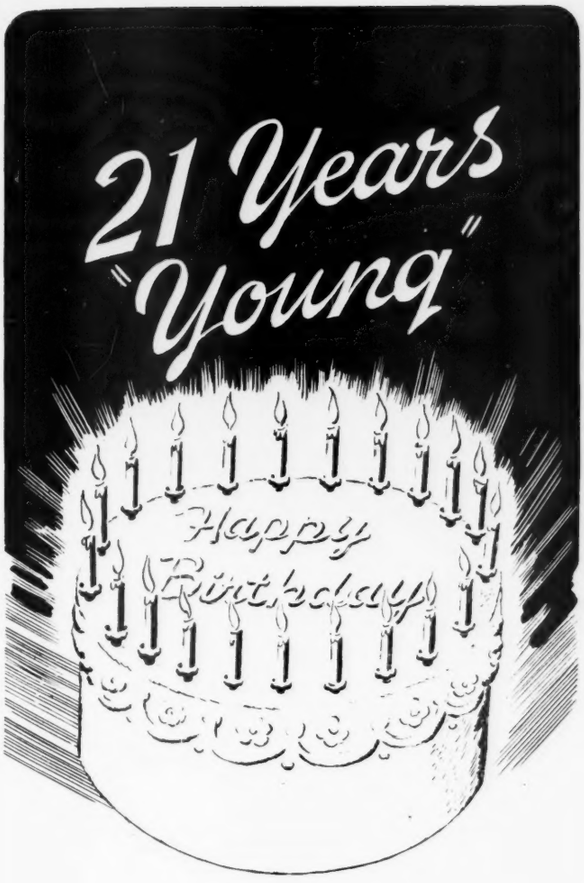
Home-Talent Craftsmen's Programs

The Educational Commission of the International Association of Printing House Craftsmen recently distributed to officers of Craftsmen's Clubs copies of a 24-page booklet entitled *Manual of Instructions for Planning Home-Talent Programs for Meetings of Clubs of Printing House Craftsmen.*

John E. Cobb, in addition to attending to his regular duties with Western Printing & Litho in Racine, Wis., is now editing *Share Your Knowledge Review*, the Craftsmen's official publication—is doing splendid job. He has also found time to write important booklet telling Craftsmen's Clubs how to prepare home-talent technical programs.

This booklet, which was written by Chairman of the International Publications Commission John E. Cobb of the Milwaukee-Racine Club, provides many interesting suggestions for building a program from home-talent material, often essential in these days of difficult travel and restrictions on the scheduling of speakers living in other cities. Procedures suggested in the booklet for planning such meetings are based on practical experience of the Clubs which have been most successful in organizing and presenting programs of outstanding educational value and with a wide variety of interest.

A limited number of copies are available for distribution to those interested in this subject. Write Douglas C. McMurtrie, Chairman of the Educational Commission, Intl. Assoc. Printing House Craftsmen, 950 Michigan Avenue, Evanston, Ill.



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The Challenge Machinery Co.

1893 50TH ANNIVERSARY 1943

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Eastern Sales Office: 50 Church St., New York

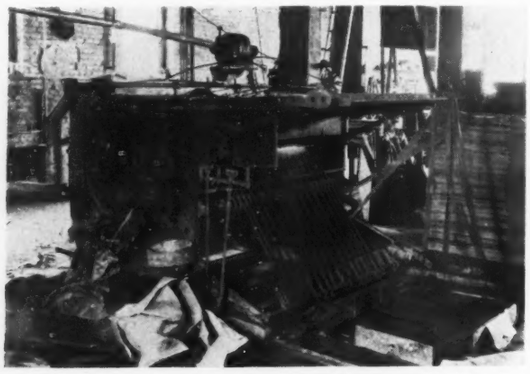
Printing Plant Fire Protection

FIRE Prevention Week in normal times may not be a very exciting occasion for the printer. Alert printers and a great number of other business men practice fire prevention the year 'round. These are not normal times, however. The United States faces the most tremendous fire problem in its history, and the printer, along with the butcher, the baker and the candlestick maker, shares in the potentialities of the emergency.

In general, this problem has three phases. Fires resulting from ordinary causes must be eliminated to prevent waste. Steps must be taken to safeguard industry and the public services from sabotage. Finally, civil protection must be organized against the threat of war.

Naturally, the printer wants to know where he stands in relation to these phases of the fire problem.

Fire from any cause is to be avoided, of course. But added to this normal consideration is the fact that replacement of damaged equipment may become increasingly difficult. This is more true, at present, of industries producing defense supplies, than of the printing equipment field, where shortages that have occurred have not been serious. But as more and more raw material is sequestered for defense and as more and more manufacturing facilities are diverted to defense production, the printer will feel the squeeze from several directions. Thus, fires will become doubly serious, owing to the inability to readily replace fire-damaged equipment.



One man was killed when an explosion of aluminum powder wrecked the spreading and dust collecting equipment in this press. This illustrates the point that printing plants should be protected not only with proper fire extinguishing equipment but fire hazards in the processes should be eliminated as much as possible.

Sabotage may not become an acute problem for the printer, except in isolated instances where his property adjoins logical targets for the saboteur. But sabotage places a serious strain on the public fire-fighting facilities of a community, forcing the printer to rely more and more upon his own protective resources.

The last phase of the fire problem—civil protection—is truly serious for the printer and everyone else. Modern warfare, directed at civilian populations, makes fire-fighters of everyone. Private industry is being called upon to expand its personnel of trained fire-fighters and these private facilities are being coordinated with community defense plans. A vast system of instruction and training in air raid precautions is being established and ultimately the body of information contained in this system will filter through every layer of our society. Only a satisfactory peace can put an end to these preparations.

The printer should adopt the slogan: "Fire Defense for National Defense." He can participate in this important program by putting his own house in order. Are ordinary measures of fire prevention supervised and enforced? Have fire extinguishers been properly recharged and inspected, and do employees know how to use them? Are automatic sprinklers and other protective devices in order? Do workers know how to summon the fire department? Do they know how to escape from the building safely?

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For printers, publishers, designers, typographers and layout men!

IF you haven't thought of it in that way before now, it is your prime responsibility to assist in the nation's eyesight conservation. How you can assist in this vitally important phase of your profession will become apparent to you after reading this book.

Type faces, length of line, leading between lines, paper, ink, printing method, and lighting are some of the factors involved in eyesight conservation.

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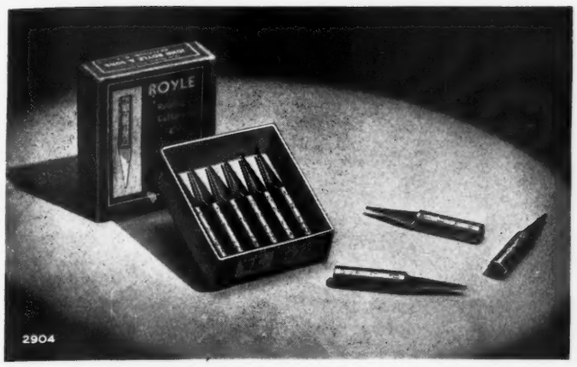

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JOHN ROYLE & SONS

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ZINK CUT CEMENT PRICES in the United States: 75c per large tube; $6.00 per dozen tubes; $5.00 per dozen tubes in gross lots.

Cut Off The Nozzle

Some users of *Booth's Zink Cut Cement* may wish to have it flow more freely from the tube. The size of the nozzle opening is designed to permit minimum Cement to be ejected, since the Cement fastens any kind of cut to wood or metal base most efficiently when used *sparingly*.

The Cement can be made to flow more freely by cutting off sufficient length from the nozzle. The nozzle is tapered—consequently, the tube may be cut down to the cap threads with an ordinary jack-knife blade.

Patching Rubber Rolls

On line-composing keyboard shafts when a roll section is worn, repairs can be accomplished with *Booth's Black Rubber Rolls*. In the interests of rubber conservation, get the fullest use from your rolls. If a roll is "patchable", a good section from a used roll can be glued to the shaft (not less than 7 in. long). If the new and old sections have not been distorted, the two butted sections will be of the same diameter.

On and after April 1, please place on your purchase orders for Booth products the CMP Reg. 5 certification with the symbol AA-2X; MRO, which has been granted to the printing and publishing industry for the purchase of maintenance, repair and operating supplies.

THE E. A. BOOTH RUBBER COMPANY

364 ROCKEFELLER BUILDING • CLEVELAND, OHIO

45TH ANNIVERSARY *of Kable Brothers*

marked by dedicatory meeting in Mount Morris, Ill.— Tribute paid to President Harry G. Kable

AN event of interest to most production and mechanical executives throughout the country was the observance of the 45th anniversary of the founding of Kable Brothers Co. in Mount Morris, Ill., on Wednesday, April 7. The meeting of the Mount Morris Kiwanis Club was dedicated to the observance. President Harry G. Kable gave a peppy talk, during the course of which he stated: "We started with a capital of $800—$500 of which we borrowed and $300 for which we gave a note. Since that time, 45 years ago, we have weathered the bad years and prospered in the good, and it is my hope to continue my association with the company for many years to come."

Heading the guest speakers was Douglas C. McMurtrie, director of typography of the Ludlow Typograph Company. Mr. McMurtrie was introduced by Harold D. Ross, superintendent of Kable Brothers Company. In paying tribute to the Kable concern and Mr. Kable, he said, in part:

"One man is offered the fruits of American enterprise and . . . makes them serve him successfully. Yours, Mr. Kable, is an enterprise that is typically American. . . . You have been in a business I know you love because you have succeeded so well."

The speaker clearly showed the importance of the printing industry as the link binding together the peoples of communities throughout the civilized world. He gave proof that the art of printing was responsible for the success of the American Revolution and other significant political and social events the world over.

Herlock Longman, dean of foremen of Kable Brothers, presented a set of traveling bags to Mr. Kable, who acknowledged the gift and launched into reminiscences of the past forty-five years.

The firm was founded in 1898 by Harry Kable and his brother, Harvey, who died in 1931. Some time ago, the firm was known as a specialist in fraternal publication printing. This business still represents a major portion of the gross business, but with the addition of a rotogravure department and a horticultural service, the company has outgrown the limitations imposed by its fraternal specialization. Today it has the modern equipment to print well almost any type of work in letterpress and rotogravure.

Letters of congratulation from nine officials of various printing trades union executives were read.

One of the highlights of the meeting was the presentation by Secretary Milo Zimmerman of Kable Brothers Co., of a portfolio of felicitations from Goss Printing Press Co.; Sigmund Ullman Co.; C. B. Cottrell & Sons Co.; The Cromwell Paper Co.; R. Hoe & Co., Inc.; Lanston Monotype Machine Co.; T. W. & C. B. Sheridan Co.; Pollard-Alling Manufacturing Co.; Cutler-Hammer, Inc.; Mer-

Herlock Longman, left, dean of foremen, presenting to Harry G. Kable, president of Kable Brothers Co., a plaque, signed by executives of the company and accompanying a gift of a set of traveling bags. In the center is Harold D. Ross, superintendent.

War Bonds are a mighty good investment --- and so are Burgess Chrome Mats. Both pay good dividends and produce a whale of a lot of satisfaction.
248
A Laboratory Product
BURGESS
Chrome
MATS
BURGESS CELLULOSE COMPANY
Manufacturers and Distributors of Burgess Chrome and Tone-Tex Mats
FREEPORT ILLINOIS
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EXECUTIVE ¶s

Ingenuity is responsible for the fashioning of a "Victory Garden Plow" by a well known newspaper mechanical executive. The story is this wise: Stereotype Superintendent Tom Lane of the Cincinnati *Post* did not expect to run into OPA, WPB priorities, and other restrictions when he decided to have a victory garden—but he did. In preparation for the garden at his home in North College Hill, he had purchased a hand tractor to push a variety of tools necessary to gardeners. Then he was informed that he would not be able to buy them. But the garden needed plowing and he would not be denied. From a hunk of iron here and a piece of scrap iron there, plus a pair of velocipede wheels, he fashioned a sturdy cultivator with five plow points. Now the garden is progressing as fast as Mother Nature will permit.

President Harvey Glover has announced the election of John A. Wilkens as vice president and treasurer of the Sweeney Lithograph Co., Belleville, N. J. The firm produces color lithographic window and counter displays, maps, posters, and the like. In addition to having been associated with the Charles Francis Press, New York, for many years, Mr. Wilkens was treasurer and director of the New York Employing Printers Association. He is also identified with other organizations.

Mechanical and production executives in the newspaper field will regret to know about the passing of Paul H. Erler (59) at St. Vincent's hospital in Toledo, Ohio on April 19. Mr. Erler had been composing room superintendent of the Toledo *Blade* since 1917. He was born in Covington, Ky., and his parents moved to Toledo when he was six weeks old. The *Blade* was practically the only firm for which he worked, he having joined the composing room force at the age of 22. He became composing room superintendent 11 years later.

Walter Schuttler, chairman of the board of Ideal Roller & Mfg. Co., Chicago and Long Island City, N. Y., died at his home in Chicago on April 23. He was the son of Wilhelmina Anheuser of the St. Louis brewing family and headed the Schuttler Wagon Works founded in Chicago by his grandfather in 1839. The firm built covered wagons used in the westward pioneer movement. He had been associated with Ideal for 25 years. He leaves a widow, Florence and two daughters, Mrs. Norris Love and Mrs. Geo. R. Beach, Jr., and three grandchildren.

Black as Night but it
WON'T OFFSET!
You've seen heavy forms like that—lots of ink—and lots of trouble. Well, sir—that's just the kind of a job Wotta Blacks can lick without half trying, for they're super black with a lot of extra mileage—and they won't offset.
That's what we mean—won't offset. And we can prove it. Just try Wotta Blacks on your next job—any job—and if you're not satisfied, we'll refund every cent you paid us.
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O.K.—Tell us about your FREE TRIAL OFFER ON WOTTA BLACKS.
P.S.—Don't forget my free copy of "DOPES."
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Down-to-earth information on how and when to dope inks. 10 pages of pressroom data. Clip coupon for "Dopes"—or write on your letterhead. No obligation.
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E. J. Kelly Co., KALAMAZOO MICHIGAN

American Printing Ink Co. has published a booklet in which is discussed the printing ink situation with respect to present conditions of supply and the supply as it is affected by WPB Orders. The context of the booklet is reassuring to printers, all of whom should read a copy. The booklet is entitled *Availability of Printing Ink Materials*.

To Stimulate War Output

600 industrialists and management representatives of the 1000 member firms of the National Metal Trades Association, will assemble for a two-day industrial relations convention at the Palmer House, Chicago, May 26-27. With the primary purpose of stimulating war output, addresses to be made by major figures in the war effort, included George S. Dively, prominent in the Association's Activities Committee and Secretary-Treasurer of Harris-Seybold-Potter Company of Cleveland. The Chicago meeting is the 45th annual convention and association conference and represents a large portion of the metal trades industry employing one million workers on aircraft, machine tools, electrical products and heavy machinery.

WPB *news and notes . . .*

Orders reported this month are mostly those which have been amended—News item on importance of copper needs.

Copper a Vital Need in War Program

MENTION copper to anyone in the printing industry and he immediately thinks of printing plates. From a wartime angle, copper's importance to the printing industry and national defense is stressed by a recent Industrial Salvage Branch, WPB statement: "America's supply of copper is not adequate and will never be as long as this war continues . . ." Some evidence of this dire need for copper is the U. S. Treasury's replacement of copper pennies by pennies made of less essential metals.

Every needless engraving eliminated, every purely decorative border plate discarded, every bit of copper reserved for absolute need, saves copper in its raw form—copper used in making alloys such as brass and bronze.

There is another considerable contribution which every owner of obsolete unneeded printing machinery can make by scrapping that old equipment now. This point is emphasized by the Miller Printing Machinery Co. in connection with its Wartime Scrap Allowance Plan. Although most old presses are scrapped for their ferrous metals commonly known as iron and steel, a small quantity of from 5 to 15 lbs. of copper, bronze and brass are found in practically all old printing presses. The bronze and brass occurs in the relatively few bushings and bearings, as compared with modern automatic cylinders. Then, too, the oil line tubing on these old presses is made of pure copper. It is pointed out that while in nine out of ten cases, it is impractical for the owner of obsolete printing presses to himself separate the few copper-containing parts from the press being scrapped, the scarce metals are separated from the iron and steel parts of the press by the scrap dealer and ultimately channeled into hundreds of different kinds of armament where copper is essential. The trained scrap dealer can immediately recognize the different kinds of metal. Their trained sorters know and quickly set aside the copper-bearing metals, whereas it would be unprofitable for the owner of old equipment to take the time and trouble to try it. Thus, the printing industry through the many small scrap copper contributions contained in obsolete printing equipment, renders valuable aid to the war effort.

The printing industry is one of the nation's largest industries and is a heavy machinery user. Its scrapped machinery is a source of thousands of tons of iron as well as a sizeable but small quantity of copper, bronze and brass. Every ounce of copper, brass or bronze released from printing plants, whether it be in large quantities of printing plates or in the relatively fewer pounds of bearings, tubing and other machine fittings, aids the nation in a practical way far beyond the dollars in scrap these essential metals return to their owners as scrap.

Electric Motor Order (L-221) Revised

ON April 22, WPB issued re-amended General Conservation Order L-221, applicable to Electric Motors and generators. The Order was discussed in the January issue of *Printing Equipment Engineer* (page 12) as amended on December 11, 1942. The April 22 amended order is approximately the same as before, but the certification on purchase

We're still making "Star" Parts!

OUR MOST IMPORTANT JOB is to help win the war. To that end we have enlisted our men and machines in the production fight. But newspapers and printing are also a vital necessity in this fight for the "Four Freedoms." Our Government recognized this fact in establishing Printing and Publishing as one of the necessary industries.

SO WE HAVE SET ASIDE a portion of our manufacturing facilities for a continued production of "Star" Parts,—enough, we expect, to help in the necessary maintenance of your Linotype and Intertype machines. We will continue this production so long as the needs of our country permit.

SOME OF OUR ROAD PERSONNEL too, have "gone to war." Travelling has become more difficult for the rest. If, therefore, we do not get to see you personally, you will understand it is not because we are neglecting our friends, but because we are helping to attend to our common enemies.

JUST THE SAME, we are, as always, at your service with "Star" Parts!

ACE BELTS *are a great conservation aid. They last longer, and pull more efficiently.*

LINOTYPE PARTS COMPANY

Precision TRADE ★ MARK Parts

WEATHERLY, PA.
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MINNEAPOLIS: 503 Fourth Avenue, South

DENVER: 1441 Blake Street

"It's a Better Paper Every Day,". . .

remarks the discriminating reader. "I find what I want in it quicker. It's briefer and clearer. The printing is better."

What he did not realize was that papers have to be better or risk seeming decline, since they cannot be bigger, nor as big.

His favorite paper had done a lot of things to carry out the publisher's mandate for quality. A change to deep molding, clean casting Certified Mats was one of them.

For dependable stereotyping, rely on Certified Mats

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THEIR SUPREMACY IN THE GRAPHIC ARTS IS FIRMLY ESTABLISHED BY NEARLY FORTY YEARS OF SPECIALIZATION

KIMBLE ELECTRIC

Division of Miehle Printing Press & Mfg. Co.

2005 WEST HASTINGS STREET
CHICAGO, ILLINOIS
DISTRIBUTED BY: AMERICAN TYPE FOUNDERS

orders for motors has been revised and reads as follows:

"The undersigned hereby certifies that the motor(s) covered by the above mentioned purchase order are of the simplest practicable mechanical and electrical design, and that:

"(1) *Idle and used motors.*—He has no adaptable idle motor or generator (except operating spares) and no operating spares in excess of the number prescribed in paragraph (b) (l) (iv) of Order L-221; and he has been unable to obtain a used motor or generator for his purpose from the following dealers known by him to be engaged currently in dealing in such motors:

. . . . . .

. . . . . .

. . . . . .

"(2) *Operating conditions.*—(To be filled in only if motor is not open type.) The following operating conditions, as listed in paragraph (c) (1) (ii) of Order L-221, justify type of enclosure ordered:

. . . . . .

"(3) *If motor is:* (i) alternating current, multi-speed and is not single winding; (ii) slip-ring, wound-rotor type; or (iii) direct current, state justification below:

. . . . . .

"(4) *Horsepower and speed.* — Horsepower rating is in accordance with paragraph (c) (2) of Order L-221. If motors do not have a speed of at least 1800 r.p.m. at 60 cy., or 1500 r.p.m. at 50 or 25 cy., give here the data required by paragraph (c) (3) (i):

. . . . . .

Speed certified by

. . . . . .
(Machinery Producer or Motor Mfr.)

. . . . . Company

By . . . . . "
(Authorized Official)

In the order, attention is called to the Used Motor Unit of the General Industrial Equipment Division of WPB. In a WPB news release it is stated that during the first full month of operation of the Unit in March, all but 87 of 1515 requests for used motors and generators were filled. Between 30,000 to 35,000 pieces of idle equipment (applicable to industry in general) are listed in a file. Requests are filled from this file. Owners of idle motors or generators are urged to list them with WPB.

Amended L-28 Order of Interest to Periodical, Newspaper and Printing Plants with Respect to Photoflash and Photoflood Lamps

WPB's Incandescent, Fluorescent and Other Electric Discharge Lamp Order L-28 as Amended last October 1942, was amended March 30. Properly, this is a manufacturer, wholesaler and dealer order, but its effects, especially with respect to photoflash and photoflood lamps are of prime interest to printing plants, newspapers and periodicals.

In the newly amended order, the purchase order certification which appeared in the October 1942 version has been eliminated. This certification was to have been used by newspapers, periodicals, news and newsphoto syndicates. In place of the certification, the newly amended order provides that photoflash and photoflood lamps shall not be sold to the consumer unless the purchase order or contract bears the preference rating of AA-5 or higher.

Since these lamps fall under the classification of maintenance, repair and operating supplies, printing plants should use the AA2X rating under CMP Reg. 5. (This order was discussed in the March issue of *Printing Equipment Engineer.*) It is our understanding that the AA2X rating takes precedence over the AA5 rating.

Apparently, another amendment contained within the order applies only to the dealer in lamps. The amendment provides that "no person shall apply or extend a rating of less than AA-5 to any order for incandescent, fluorescent or glow discharge lamps, and no rating of less than AA-5 shall have any force or effect with respect to the acceptance and filling of any order" for these lamps. These types of lamps (except photoflash and photoflood) may be purchased by the citizen consumer from the dealer without preference rating.

M-241-a Amended

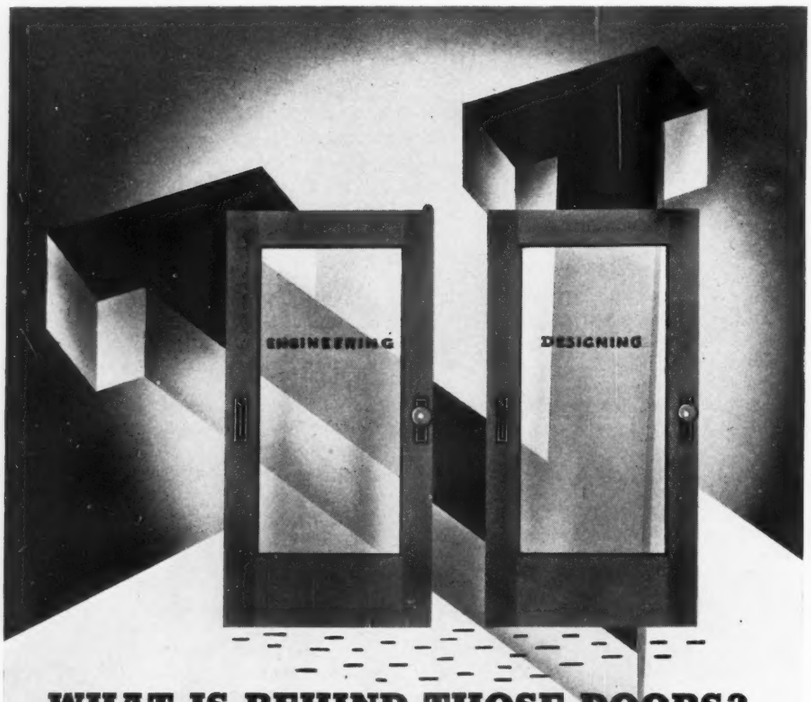
PAPER and Paperboard Products General Conservation Order, M-241-a, first issued January 8, 1943, has been amended by WPB under date of April 7, 1943. Liquidation of converted paper products inventories is now permitted. The first amendment permits a converter or manufacturer of certain products made from pulp, paper or paperboard to continue to make articles in List B for a period of 90 days from February 15 provided the materials were held by him in inventory on January 15, 1943. Removed from the restricted list in the amended order are decalcomania transfers for non-commercial use. Quote restrictions are removed on envelopes, tablets, notebooks and pads, paper stationery and papeteries, wax papers (other than bread wrappers), and some other articles. Friction and flint glazed, metallic and mica coated, plated and mat finish papers are removed from List A which restricted production to 50% of 1942 production.

Paper Conservation Urged in Beverage Industry

CONSERVATION of paper and hardwood was discussed at recent meetings of two beverage industry advisory committees and WPB officials in Washington. Deputy Director E. W. Palmer, of the Printing and Publishing Division, WPB, urged the carbonated beverage industry and the distilled spirits industry to scrutinize their paper use with the idea of eliminating non-essential uses, and curtailing essential uses as much as possible. He suggested that the use of paper containing virgin wood pulp be eliminated in display and other point-of-sale advertising.

The Distilled Spirits Industry Advisory Committee agreed that paper for labels could be reduced to 60 pounds per ream. Types of paper usually used for such purposes are coated, super-calendered, and English finish.

A three-man task committee to study the possibility of eliminating the paperboard cartons which consumers use to carry bottles of carbonated beverages was appointed at the meeting of the Non-Alcoholic Beverage Industry Advisory Committee. The committee will work with the Containers Division, WPB, in compiling facts from which WPB will determine whether or not any conservation would be effected by eliminating the carry-out cartons.



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Inventory Toners May Be Used in Other Than Black News Inks

OIL soluble toners, either in dry form or solution, which were in producers' inventories prior to March 30, 1942, may be used in the production of black inks other than news inks as the result of amendment on April 24 by WPB Conservation Order M-53.

A previous provision of the order had resulted in freezing in the hands of ink manufacturers approximately 25,000 lbs. of oil soluble toner in dry form and an equivalent amount in solution, the Printing Ink Unit stated. Attempts to dispose of this material to other possible users such as carbon paper and ribbon manufacturers and shoe polish manufacturers had been unsuccessful because these users generally consume the materials in different forms than those held by ink makers.

Made a Deputy Director

APPOINTMENT of Harry M. Bitner, Pittsburgh publisher, as a Deputy Director of the Printing and Publishing Division of the War Production Board was announced on April 14 by William G. Chandler, Director of the Division. Mr. Bitner has been serving the WPB as a special consultant to Mr. Chandler since March 8, but will now take over supervision of newspaper and magazine problems, cooperating with Walter J. Risley, Jr., administrator of the Magazine Section, and Matthew G. Sullivan, chief of the Newspaper Section. Deputy Director E. W. Palmer will continue to have general supervision of all printing and publishing problems, a function he has performed since the Printing and Publishing Division was organized.

When he first became an official of WPB, Mr. Bitner took leave of absence from all his commercial and private businesses, including The Pitt Publishing Company, publisher of the Pittsburgh *Sun-Telegraph*, where he was President, Publisher, and a Director; The Times

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Publishing Company, publisher of the Detroit *Times*, in which organization he was vice president and director; The American Weekly Inc., the Hearst Publications Inc., and the Hearst Consolidated Publications, Inc., in which organizations he also served as vice president.

P-100 Revoked

PREFERENCE Rating Order P-100, general repair, maintenance and operating supplies order, has been revoked by the War Production Board, it was announced on April 5. The action is taken in view of the fact that producers who formerly used the ratings assigned under P-100 are permitted to operate within the terms of CMP Regulation No. 5.

CMP Regulation No. 5 assigns a preference rating of AA-1 to producers covered in its Schedule I, AA-2X to those covered in Schedule II, and an A-10 rating to business activities not mentioned in either schedule.

Use Proper PD-1A Form

BUSINESS firms and individuals who normally apply for priority assistance on Form PD-1A are warned by War Production Board officials that, beginning April 15, only applications made on the revised version of that form issued January 16, 1943, will be considered. The new form is printed in two colors, yellow to be used in applying for preference ratings for items to be exported without further processing in the United States, and white for all others. Ample supplies of each are now available in WPB field offices. PD-1A applications must be filed with the field office nearest the person seeking priority assistance. To send them directly to Washington entails delay in final action.

PATENTS

(Continued from Page 31)

port and the designed sheet is united to a layer of wires or metallic screen while it is mounted on the support by embedding the wires or screen in the sheet and then removing the support from the sheet. Extreme fineness of detail in etching is obtained because care need not be given to the etchable characteristics of the screen or wire itself. Invented by Joseph B. Brennan and Leona Marsh, Euclid, Ohio. Assigned to Joseph B. Brennan by Leona Marsh. Application June 20, 1939. 8 claims.

Plate Making:

2,315,101. PROCESS FOR DROPPING OUT THE SCREENING FROM HIGHLIGHT AREAS of halftone negatives, which is said to be quicker than older processes and which diminishes the need for skilled labor. From an original drawing comprising highlight and tone sections, two halftone masks are made—one a negative with substantially transparent portions corresponding to the tone sections of the drawing and opaque portions corresponding to the highlight sections of the drawing, and the other a positive with opposite transparent and tone sections. The original drawing is photographed successively through each of these masks but with an interposed halftone screen only between the negative mask and the light-sensitive material so that the screen pattern is killed by the opaque portion of the negative mask corresponding to the highlights of the original drawing. Several variations are described in the patent. Invented by Laszlo Zukmann, New York, N. Y. Unassigned. Application July 29, 1941. 24 claims.

2,315,903. METHOD OF ENGRAVING INTAGLIO PRINTING ROLLS FOR TEXTILE PRINTING which eliminates some operations now employed and facilitates others, whereby a considerable saving in time and materials is said to be effected with a better quality of printing. A feature of the method consists in mechanically applying resist material in selective amounts on a roll surface to form a bare metal outline and at the same time applying ground lines of resist material so that only one etching procedure is necessary. This improves the conventional method of first cutting an outline by cumbersome pantograph methods, in a resist coating, etching, then filling in the etched lines and repeating the entire operation to obtain etched ground lines. Another feature is the step of varying the depth of the outline relative to the depth of ground lines in a single etching operation. Invented by John J. Ormond, Boston, Mass. Assigned two-thirds to Joseph D. Ramsey, Boston, Mass. Application June 30, 1941. 8 claims.

2,316,148. PHOTOGRAPHIC NEGATIVE for use in making printing plates. The photographic negative by the present invention is prepared by mechanical means as distinguished from photographic means. A translucent paper base is used which has a layer of hydrophilic polyvinyl alcohol and an overlying layer of gum arabic impregnated in the polyvinyl alcohol. A greasy printing image is applied directly to this surface. Then there is applied an aqueous opaque mixture of albumin and ammonium dichromate which is dried, exposed to actinic light and thereby made insoluble in water. Thereafter water is used to wash away the greasy printing image (which has rejected the water-based coating) together with underlying gum arabic, thus leaving a translucent image on an opaque background. Invented by Ellis Bassist, Brookline, Mass. Assigned to William C. Toland, trustee, Brookline, Mass. Original application December 28, 1940. Divided and this application July 30, 1941. 4 claims.

2,316,581. MAKING OF SEPARATION IMAGES for four-color reproduction, *i.e.*, where blacks and grays are obtained by an achromatic separation image and by use of black ink, instead of by combinations of the three chromatic separation images and by combinations of the three color inks. Advantage is said to be sharper printed outlines and the saving of relatively more expensive colored inks. Present invention eliminates much hand retouching of the plates heretofore necessary for the four color method. The three color components of a colored original are directed on three separate photo-electric receptors. The greatest of the three responses is selected and used to provide an achromatic separation image and the differences between the selected response and the individual response of each receptor are used to provide three chromatic separation images. Invented by Arthur C. Hardy, Wellesley, Mass., Francis L. Wurzburg, Jr., New York, N. Y., and Edward C. Dench, South Orange, N. J. Assigned to Interchemical Corp., New York, N. Y. Application August 5, 1941. 14 claims.

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2,316,643. PHOTOMECHANICAL PROCESS which makes possible contrast control with vignetted halftone screens of the contact type. As described in patent 2,304,988, reported in this section in the January, 1943, *Printing Equipment Engineer*, contrast control with contact type screens has been achieved by using a colored screen, dot elements each of dense and less dense areas, and by varying the color of the light to the screen thereby to control the light transmission areas of the dots. Disadvantage was that, with a multicolored original, the color of the printing light must of necessity be limited to the one color of the particular separation. Present invention uses polarized light instead of colored light; dot elements each of graded polarizing areas instead of graded density areas; depends on rotating the polarizing filter instead of varying the light color. Hence contrast control is possible when making color separations or black-and-white copy of any type of original record including multicolored originals. Invented by John A. C. Yule, Rochester, N. Y. Assigned to Eastman Kodak Co., Rochester, N. Y. Application November 18, 1941. 5 claims.

2,316,644. CONTACT HALFTONE SCREEN for the photomechanical process described in patent 2,316,643, above. On their transparent support, the dot elements are graded substantially continuously from strongly plane polarizing in their centers to substantially non-polarizing in their corners so that upon contact exposure the effective area of the dot elements is varied according to the orientation of the filter used in directing polarized light to the screen. Invented by John A. C. Yule, Rochester, N. Y. Assigned to Eastman Kodak Co., Rochester, N. Y. Application November 18, 1941. 2 claims.

2,316,645. DEEP ETCHING PROCESS for a lithographic plate which eliminates the use of alcohol. The unexposed border of the plate and other areas not desired to have appear in the print ultimately made from the plate, are stopped out with regular desensitizing plate etch which is soluble in water. This is used instead of shellac or other customary appropriate material which required alcohol as a solvent. Water-soluble plate etch is serviceable as the stop-out medium according to the present invention because the stop-out is applied after the etching step, instead of between the exposure and etching steps as heretofore. Thus the water-soluble material is not subjected to the washing operation following completion of the etching step, but is applied just prior to the coating of lacquer. Invented by Philip Zeiger, New York, N. Y. Unassigned. Application February 25, 1942. 1 claim.

2,317,179. PROCESS OF FORMING A ZINC ALLOY especially useful for rolled photoengravers plates which require permanence of hardness and creep resistance after annealing at elevated temperatures, and which must etch smoothly and rapidly in an acid etching solution. Process comprises rolling and fabricating a zinc alloy containing 2-5% copper and .02-.50% of a grain refining high melting point element such as beryllium, zirconium, titanium, vanadium, etc. to form the article into the desired shape and then increasing the hardness and creep resistance of the article by heat treatment at a temperature up to 750 deg. F. Invented by John R. Daesen, Oak Park, Ill. Unassigned. Application September 18, 1940. 15 claims.

Printing Inks and Related Chemicals:

2,315,002. PRODUCING PERMANENT PATTERN EFFECTS ON FABRICS made of or containing yarns of an organic derivative of cellulose by locally printing the fabrics with a water soluble resist compound such as a polyvinyl alcohol resin and then subjecting the printed fabric to the action of a volatile non-aqueous agent having a shrinking action on the organic derivative of the cellulose yarn in the uncoated portion of the printed fabric. Example: A cellulose acetate fabric, with a satin weave, is printed in a pattern, by means of a screen, with a resist comprising 5% of a polyvinyl alcohol resin in water. The fabric is then dried and subjected to a swelling and shrinking action by impregnating the reserve printed fabric with a solution of equal parts of acetaldehyde and xylene maintained at 15-20 deg. C. for 20-30 seconds. Fabric is then dried and washed. Treatment results in a permanent design similar to a jacquard weave and the material retains its original soft hand. Invented by Arthur Lyem, Cumberland, Md. Assigned to Celanese Corp. of America, New York, N. Y. Application May 15, 1941. 7 claims.

2,315,195. METHOD OF PREPARING NEW INDIGOID DYESTUFFS of the indirubin type by condensing a 6-halogen-7-methylisatin such as 6-chloro-7 methylisatin with a 2:1-naphththicindoxyl, in the presence of an organic solvent such as alcohol, or in sulfuric acid. The dyestuffs of the invention are suitable for dyeing and especially printing materials of cotton, synthetic or animal origin. They have good fastness to light, chlorine and washing. Invented by Jaroslav Froehlich, Basel, Ernst Stoecklin, Binningen, and Richard Tobler, Riehen, Switzerland. Assigned to Society of Chemical Industry in Basle, Basel, Switzerland. Application April 27, 1940. 9 claims.

2,315,232. NEW WATER-INSOLUBLE DISAZO DYES, which may be prepared by diazotizing an aminoazo compound of the benzene or naphthalene series having neither a nitro group nor any group which imparts water solubility, e.g. 2-aminoazotoluene and coupling this diazo compound with a para-alkylphenol containing at least three carbon atoms in the alkyl group, e.g. para-propyl phenol. These dyes may be used for the graphic arts, especially for double tone printing. Invented by Alfred Thurn, Dessau in Anhalt, and Hans Krzikalla and Alfred Kirsch, Ludwigshafen, Germany. Assigned to General Aniline & Film Corp., New York, N. Y. Application March 25, 1937. 8 claims.

2,315,375. NEW SULPHO-TRICARBOXYLIC ACIDS AND ESTERS THEREOF, which are characterized by having surface active properties. The acids can be prepared in a number of ways, for example by sulfonating tricarboxylic acids such as ethane tricarboxylic acid or the esters thereof with sulfonating agents such as fuming sulfuric acid. Unsaturated acids, especially aconitic acid can be sulfonated by adding an alkali metal or ammonium sulphite or bisulphite to either the free acid or to the esters thereof. Products of the invention have dispersing, emulsifying and wetting properties. Thus, they are useful in printing, softening and dyeing textiles, in the manufacture of writing and printing inks, paints, and various emulsified paints and varnishes. Invented by Paul Nawiasky, Summit, and Gerhard E. Sprenger, Westfield, N. J. Assigned to General Aniline & Film Corp., New York, N. Y. Application January 4, 1939. 21 claims.

2,315,514. METHOD OF PREPARING NEW ORGANIC SULPHINIC ACIDS wherein a mixture of chlorhydrocarbon sulphonylchlorides and hydrocarbon sulphonylchlorides, obtained by reacting a gaseous mixture of sulphur dioxide and chlorine with a saturated liquid hydrocarbon, is reacted with appropriate reducing agents such as sodium sulphite. The sulphinic acids and their water soluble salts may be used as reducing agents for discharge printing and for printing vat colors. Invented by Arthur L. Fox, Woodstown, N. J. Assigned to E. I. du Pont de Nemours & Co., Wilmington, Del. Application November 22, 1938. 7 claims.

2,315,708. PROCESS OF PRODUCING A RESINOUS PRODUCT FROM SOYA BEAN OIL, pentaerythritol and phthalic anhydride, which comprises heating the oil to about 180 deg. C., adding a small quantity of an alcoholysis producing alkaline catalyst and a quantity of pentaerythritol just sufficient to effect substantially complete alcoholysis of the oil. The batch is maintained at a temperature of about 190 deg. to 220 deg. C. for a period of three-quarters of an hour to three hours until alcoholysis is substantially complete and an alcohol soluble intermediate is obtained. Then additional pentaerythritol and phthalic anhydride are added at a temperature of about 200 deg. C. in a quantity sufficient to form a resinous product. The reaction is continued at a temperature of about 220 deg. to 250 deg. C. until a final resinous product is obtained having an acid number of less than 50. Certain products of the invention are useful as quick converting printing ink vehicles. Invented by Almon G. Hovey, Birmingham, and Theodore S. Hodgins and Charles J. Meeske, Royal Oak, Mich. Assigned to Reichhold Chemicals, Inc., Detroit, Mich. Application January 15, 1941. 2 claims.

2,316,277. METHOD OF OBTAINING CELLULOSE ACETATE or other cellulose ester or ether materials exhibiting pattern effects on pale colored grounds, by locally applying a sulfoxylate discharging agent to the cellulose material, colored in pale shades, with an anthraquinone dyestuff having direct affinity therefor such as the amino anthraquinones. An example of the discharging agent is zinc formaldehyde sulphoxylate. Invented by Henry C. Olpin and William C. McKnight, Spondon, near Derby, England. Assigned to Celanese Corp. of America. Application September 4, 1940. 12 claims.

2,316,629. INTAGLIO PRINTING INKS which employ as binders aqueous emulsions of polymers of compounds which in the monomer stage contain only one vinyl group, such as esters, acetals and ethers of polyvinyl alcohols, polymers of acrylic and methacrylic acids and their derivatives, etc., the emulsifying agents being polyvinyl alcohols and their water soluble derivatives. These emulsions are very stable. Inks prepared from them give prints which are fast to rubbing and water, permit the plates to be wiped clean without smearing, and produce prints of very light shade for the binders employed. Invented by Hilger P. Schmitz, Munich, Germany. Vested in the Alien Property Custodian. Application May 13, 1940. 1 claim.

Printing Presses and Equipment:

2,315,142. IMPROVEMENT IN "TWO-TO-ONE" BED MOTIONS for printing presses having reciprocating beds. A simple and efficient high speed bed motion is provided by means of a rack driven by a pinion which is rotated to drive the bed at uniform speed during the major portion of each stroke, the bed being reversed at the ends of each stroke whereby it is gradually decelerated until stopped. The bed is then accelerated in the opposite direction until the pinion imparts to the bed the uniform part of its movement on such stroke. This is accomplished in a "two-to-one" bed motion wherein the crank pin makes two complete revolutions in each press cycle and wherein the reversal of the bed is effected at both ends of the stroke while the crank pin is travelling through the same identical arcuate limits. Invention results in both reversals being alike, thus also eliminating the so-called "sweet and sour"

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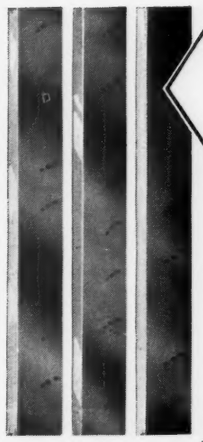

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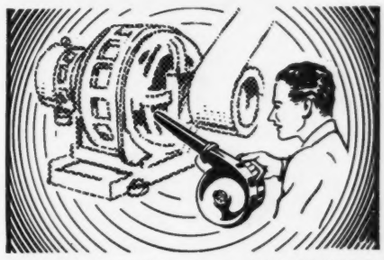

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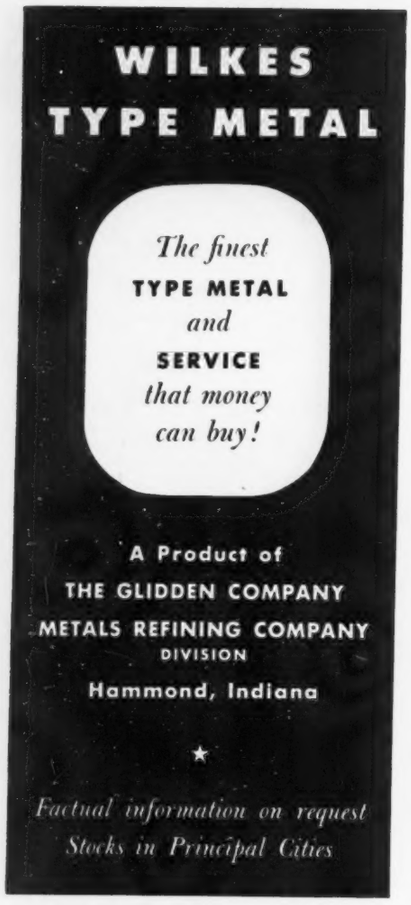

strokes required for reversing the bed in a "three-to-one" bed motion such as shown in patent 2,244,979. Invented by Burt F. Upham, Grimsby, Ontario, Canada. Unassigned. Application September 9, 1940. 19 claims.

2,315,459. TEXTILE PRINTING APPARATUS wherein the fabric is fed continuously under a uniform tension and at a controlled width as it enters the printing zone. Fabric is fed from a succession of supply rolls through a scray or other suitable accumulator and then through a tentering device arranged to stretch it to a uniform width and finally through a tensioning device to the printing machine. The tensioning device may comprise an electric brake constructed and arranged so that the fabric is held between it and the printing roll under a uniform tension, both laterally and longitudinally. Arrangement enables printing conditions to be maintained properly without stopping the machine for removal of a supply roll. Invented by Stephen B. Stafford, Oxford, Mass. Assigned to Rice Barton Corp., Worcester, Mass. Application October 24, 1940. 4 claims.

2,315,729. COLLAPSIBLE CORE for use with rubber printing rolls or sleeves and which is interchangeable with rubber printing rolls of substantially the same length as the core structure or with a plurality of rubber design sleeves that may be assembled on the core in proper relation to each other. Two half mandrel sections may be expanded to predetermined diameter by sliding two complementary shaped tapered faces by means of bolts thereby engaging the inner surface of the sleeve in a manner to prevent rotation under printing pressure. The core permits butting designs where two or more are printed at one time on the same shaft and may also be employed as a collapsible core for use with rubber offset sleeves on lithographic presses in place of the conventional rubber blanket. Invented by Benjamin L. Nunnally, Scarsdale, N. Y. Assigned to Jas. H. Matthews & Co., Pittsburgh, Pa. Application October 31, 1941. 2 claims.

2,315,730. SILK SCREEN PRINTING PRESS said to expedite printing with either single or multiple colors. Press includes a table with dovetail slots parallel to both its pairs of edges and with slides in each slot and guide blocks extending above the slides for positioning a sheet of paper. A pivoted frame member holds the screen by means of stationary pins on one edge of the frame and movable locking pins on the other. By operation of a foot pedal the screen frame is caused to contact the paper and the ink is forced through the screen by means of a squeegee in the conventional manner. Invented by Rudolf Orthwine, New York, N. Y. Unassigned. Application August 16, 1941. 2 claims.

2,315,910. METHOD OF MAKING PRINTERS ROLLERS FACED WITH "PRINTERS COMPOUND", i.e., a mixture of glue and glycerine, which is simple and effective and produces rollers having a smooth and unflawed surface. Method comprises the steps of pouring molten printer's compound on a flat flexible sheet of smooth material such as paper faced with lacquer. The bottom of the poured compound is chilled to solidify the lower portion while the upper portion remains tacky. Then the slab of compound together with the supporting sheet is wound about a roller core while the upper surface of the slab, which is in contact with the core, is still sticky and soft. Finally the rolled up and adhered slab is permitted to become set throughout after which the supporting sheet is stripped off. Invented by Henry J. Thielker, New York, N. Y. Assigned to Western Electric Co., Inc., New York, N. Y. Application December 30, 1938. 3 claims.

2,316,708. OFFSET ROLLER FOR PRINTING VELVET, napped fabrics and flocked goods, so that separate color sections have clear sharp edges and the pile of the fabric is impregnated but not matted down. The roller is constructed with a soft cushioning outer surface, such as resilient rubber, and with an inner core of steel provided with a hard rubber layer which resists deformation of the roll surface. A film of grease repellent hydrocarbon solids such as camphor is formed on the blanket to prevent penetration of ink into it. A second film, receptive to the inks employed is applied over it, the second film consisting of liquid hydrocarbons, such as gasoline and acetone, mixed with hydroquinone. The offset roller takes ink from inked relief color printing plates arranged in register to present a uniform height to the surface of the roll. Inks repellant to each other (such as greasy lithographic ink, a letterpress ink containing little if any grease, and a metallic ink having a binder of a varnish nature) are used adjacent one another to prevent fusing of their colors both on the roller and on the fabric. Thus fresh ink may be continuously collected by the roll without cleaning the rolls between impressions. Invented by John J. Ormond, Boston, Mass. Assigned two-thirds to Joseph D. Ramsey, Boston, Mass. Application July 3, 1940. 11 claims.

2,316,935. IMPROVED BLANKET OR IMPRESSION CYLINDER for use in connection with stereotype or other relief printing plates on high speed rotary presses. Separate means are provided for securing and tensioning a number of makeready sheets on the surface of the cylinder, the arrangement being such that the outer sheet may be released and lifted from the surface of the cylinder without disturbing the other sheets. A further feature is the provision of extremely narrow slots longitudinally through the cylinder, through which the surfacing sheets are clamped, thereby providing for the printing of sheets with very narrow margins between adjacent page impressions. Invented by Curtis S. Crafts, Oak Park, Ill. Assigned to The Goss Printing Press Co., Chicago, Ill. Original application June 10, 1938. Divided and this application March 6, 1941. 4 claims.

2,317,095. ARRANGEMENT FOR MAINTAINING REGISTER in multi-unit presses such as multi-color rotogravure presses, which is an improvement on patent 2,142,501. Invention involves a tension-actuated governing mechanism for changing the speed of the web-moving means of a unit so as to equalize the tensions of the reaches of the web at the two sides of the unit. Present mechanism differs in two respects from that in the previous patent. It causes only very gradual changes in the speed of the web-moving member of a unit so that all danger of straining or tearing the web is eliminated. Also, it is constructed so that after a short period of "hunting" it sets the speed of the web moving means of each unit to maintain equality of tension and thus avoids the continual making of speed adjustments which is necessary with the mechanism of the previous patent. Invented by Curtis S. Crafts, Oak Park, and Christoper V. Knell, Glen Ellyn, Ill. Assigned to News Syndicate Co., Inc., New York, N. Y. Application December 27, 1940. 7 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D. C.

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LAST YEAR'S BONDS GOT US STARTED

THIS YEAR'S BONDS

ARE TO WIN!

★ Last year saw nearly 30,000,000 workers voluntarily buying War Bonds through some 175,000 Pay-Roll Savings Plans. And buying these War Bonds at an average rate of practically 10% of their gross pay!

This year we've got to top *all* these figures—and top them handsomely! For the swiftly accelerated purchase of War Bonds is one of the greatest services we can render to our country . . . and to our own sons . . . and our neighbors' sons. Through the mounting purchase of War Bonds we forge a more potent weapon of victory, and build stronger bulwarks for the preservation of the American way of life.

"But there's a Pay-Roll Savings Plan already running in my plant."

Sure, there is—but how long is it since *you've* done anything about it? These plans won't run without winding, any more than your watch! Check up on it today. If it doesn't show substantially more than 10% of your plant's pay-roll going into War Bonds, it needs winding!

And you're the man to wind it! Organize a vigorous drive. In just 6 days, a large airplane manufacturer increased his plant's showing from 35% of employees and 2½% of pay-roll, to 98% of employees and 12% of pay-roll. A large West Coast shipyard keeps participation jacked up to 14% of pay-roll! You can do as well, or better.

By so doing, you help your nation, you help your workers, and you also help yourself. In plant after plant, the successful working out of a Pay-Roll Savings Plan has given labor and management a common interest and a common goal. Company spirit soars. Minor misunderstandings and disputes head downward, and production swings up.

War Bonds will help us win the war, and help close the inflationary gap. And they won't stop working when victory comes! On the contrary—they will furnish a reservoir of purchasing power to help American business re-establish itself in the markets of peace. *Remember, the bond charts of today are the sales curves of tomorrow!*

You've done your bit Now do your best!

THIS SPACE IS A CONTRIBUTION TO AMERICA'S ALL-OUT WAR EFFORT BY

PRINTING EQUIPMENT ENGINEER

Advertising Can Help Win the Peace

WE SHALL be on the way to winning the peace if, when war is over, America needs to run more "help wanted" advertisements than "situations wanted."

That WILL be the case then if thirty million families have been made to want *new* products of American industry, and start buying them.

But we can't afford to wait until war is over, because creating new wants is a long-time educational process. For instance, a generation ago people had not the slightest interest in tomato juice, or radios, or electric refrigerators. There were no such things. When people finally learned of these products they did not rush to buy them. Continuous, hard-selling advertising by *many* manufacturers and dealers had to create these vast businesses.

Now as never before in history, America needs advertising. We need it to keep old wants alive, to create additional wants, to make men and women dream hopefully of owning conveniences that today are only on manufacturer's drawing boards.

Consistent advertising during the war can render still another valuable service. Advertising revenue has made our newspapers and magazines inexpensive, so that millions can buy them. It has enabled publishers to build up nation-wide and world-wide staffs of expert reporters and writers on many subjects. Thus it has helped to multiply the educational force of America's free press.

Advertising and the free press, as a team, have helped our nation approach ever closer to the fuller, better life—a beacon light to the rest of the world. Now during the war advertising which continues to create wants can help to maintain unimpaired the proved benefits of a great and constructive free press.

SET IN EGMONT

✶ INTERTYPE ✶

Eleventh of a series of messages on the Freedom of the Press by INTERTYPE, *Brooklyn*